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UNION COLLEGE
IN KENTUCKY

1987-88 Catalog

UNION COLLEGE BULLETIN

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DIRECTORY FOR CORRESPONDENCE

Academic Program and Advisement	Vice President for Academic Affairs
Admissions Information	Director of Admissions
Admission to Graduate Program	Dean of Graduate Academic Affairs
Alumni Affairs	Director of Alumni Affairs
Charges and Payment of Bills	Business Manager
Gifts and Bequests	Vice President for Development
Personal Welfare, Health of Students, Housing	Vice President for Student Affairs
Grants, Scholarships, Work-study and Loans	Director of Financial Aid
Transcripts, Academic Records, Veterans Affairs	Registrar

TELEPHONE COMMUNICATION

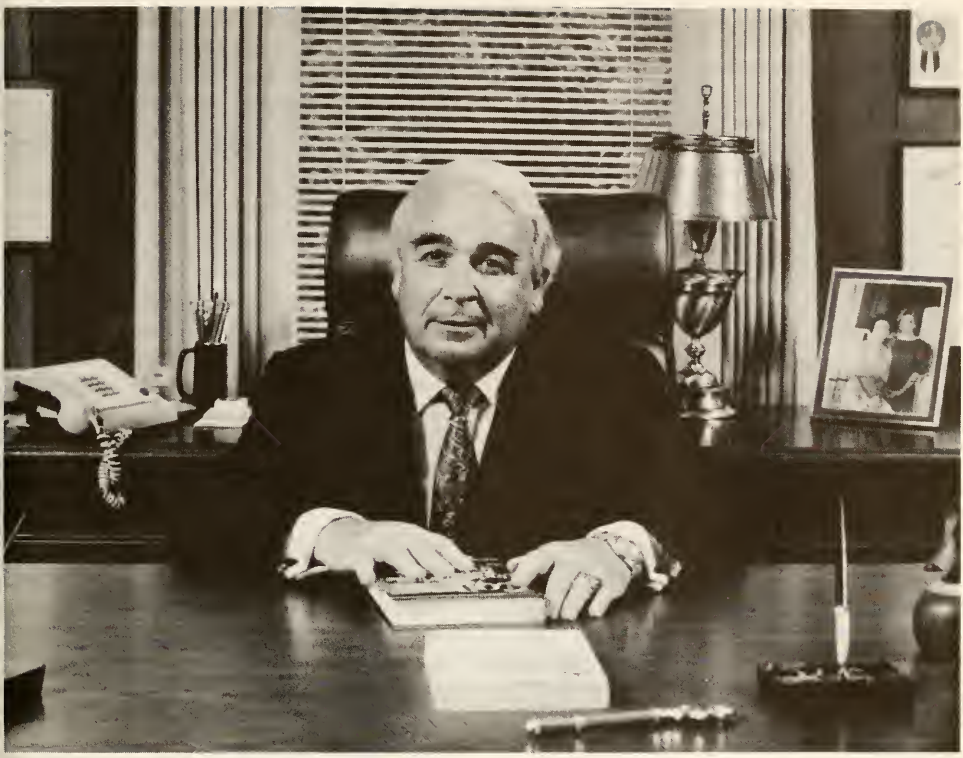
A campuswide network of telephones enables the caller to reach any administrative or staff office by dialing the central switchboard. After 11 p.m., emergency calls for students may be directed to their dormitory counselors.

Central Switchboard	**(606) 546-4151**
Counselor, Pfeiffer Hall	(606) 546-3421
Counselor, Stevenson Hall	(606) 546-3659

Union College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, the Kentucky State Department of Education, and is approved by the University Senate of The United Methodist Church.

It is the policy of Union College not to discriminate on the basis of sex, race, color, handicap, age, or national or ethnic origin in the admission of students, in its administration of educational programs, scholarships, loan programs, or other school-administered programs, or in athletic participation. Inquiries should be directed to Mr. Edward H. Black, Affirmative Action Officer.

While this catalog presents information as accurately as possible as of the date of publication, the College reserves the right to make such changes as future circumstances may require.



DR. JACK C. PHILLIPS

Welcome To Union College

We welcome and invite you to examine Union College. Founded in 1879 by Barbourville citizens and purchased in 1886 by the Methodist Church, Union has as its chief mission, service to the Appalachian area of Southeastern Kentucky, Eastern Tennessee, and Southwestern Virginia.

With an enrollment of over 1,000 students, including both graduate and undergraduate persons, Union College is committed to academic excellence. The College offers the Bachelor of Arts, the Bachelor of Science, the Bachelor of Music, and the Master of Arts in Education degrees. It also offers a Rank I Program beyond the Master's level as well as various associate-degree and certificate programs.

Located on the historic Wilderness Road, Union is the first College in this tri-state area. There are now over 8,000 graduates with over 3,000 having the Master of Arts in Education Degree.

We are proud of our tradition and are pleased that you are interested in our undergraduate program. As you peruse these pages, hopefully you will like what you see. Should you wish to enter our College, we believe your experience will be a profitable and happy one.

Sincerely,

Jack C. Phillips

Jack C. Phillips
President

A History of Service

Union College was founded in 1879 by a group of progressive citizens of Barbourville who formed a stock company and secured the main part of the present campus. In 1880, the first building was formally opened on the site of what is now known as Centennial Hall.

The College was purchased by the Kentucky Conference of the Methodist Episcopal Church in 1886, and Daniel Stevenson was made president of the reorganized institution. A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hall, and the Classroom Building (now known as Centennial Hall).

The college department was discontinued in 1908, and for eight years the institution was maintained as a Junior College, an academy, and an elementary school. It became a *bona fide* College again in the presidency of Ezra T. Franklin, who inaugurated a program of development during which the Memorial Gymnasium and a home for the president was built. In 1927, the College was accredited by the University of Kentucky as a four-year college of A grade.

President John O. Gross emphasized the improvement of the curriculum and the building of a strong faculty. In 1931, Union was accredited by the University Senate of the Methodist Episcopal Church, and in 1932, full accreditation was realized when it was made a member of the Southern Association of Colleges and Schools. The Board of Regents of the University of the State of New York placed Union College on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the College achieved marked progress in both its educational programs and in plant improvement. Seven new buildings were completed and others were enlarged. The curriculum was expanded, endowment funds were increased, and a markedly improved program of faculty salaries and benefits was adopted.

Mahlon A. Miller was elected to the presidency in 1959. In 1960, a Master of Arts in Education degree program was introduced, and plant expansion continued with the development of College Park, a faculty residential area, followed by the construction of additional student housing, a physical education building, a student center, and a science center, completed in 1973.

President Jack Carter Phillips began his duties at Union College in January, 1983.

Dr. Phillips earned the Bachelor's Degree at Birmingham-Southern College and the Master of Divinity Degree at Vanderbilt University. He received an honorary Doctor of Laws Degree from Union College in 1981. He was lauded at that ceremony for "notable achievement in the field of institutional fund raising and, in particular, service to the colleges and universities related to The United Methodist Church."

A native of Scottsboro, Alabama, Dr. Phillips served in the U.S. Marine Corp from 1954 to 1957.

Under Dr. Phillips' leadership the college has experienced significant enrollment increases every year. A new 37,000 square foot library addition with computer facilities and a modern well equipped learning resource center opened in 1987.

The College has always accepted a special mission to Appalachia, a commitment which is now being strengthened with unique academic programs based on regional characteristics, expanded student financial aid, student community-service projects, and new career-oriented curricula.

The doors of Union College are open to all who aspire to a more fulfilling life, without regard to race, color, sex, handicap, national or ethnic origin.

Interested and prospective students are encouraged to arrange a visit to the campus by calling the Admissions Office (606-546-4151).

STATEMENT OF PURPOSE
(Mission Statement)

Union College is an independent institution of higher education affiliated with The United Methodist Church. It is dedicated to maintaining an academic environment that stimulates intellectual curiosity and scholastic competence, encourages an understanding of and commitment to the Christian faith, and undergirds the development of the whole person, so that students will develop the human resources needed to live creatively and wholesomely in a changing world.

Students are admitted to Union College without regard to race, creed, age, sex, or physically handicapping condition. Although eastern Kentucky and the general mid-Appalachian region constitute the primary service area of the college, it is intended that a balance will be maintained by enrolling applicants from across the nations and around the world.

Union College is committed to providing a faculty characterized by sound scholarship, stimulating teaching, exemplary character, and a deep concern for the needs of the students. Classes are small, many teaching and learning options are provided, and opportunities for both professional and information counseling and guidance are abundant.

Union College desires to provide a broad academic program to meet a wide variety of student and social needs and interests. The basic undergraduate liberal arts program of the college provides opportunities for preparation in the professions as well as general education in the humanities, arts, social studies, and sciences. Union College also has curricula at the certificate, associate degree, and graduate levels. These latter curricula are closely coordinated with regional manpower needs. Credits and noncredit continuing education offerings are available for persons seeking skills and/or desiring personal enrichment. Classes in all categories are offered on demand in various communities within the primary service area of the college in order to provide maximum convenience and minimum cost for students.

Union College affirms a special concern for improving the quality of life in Appalachia. The academic program provides undergraduate and graduate curricula in education that contain elements designed to address the unique needs of the public schools in the region. Appalachian regional studies make available to all interested students a basis for understanding the history and distinctive features of the region. The college's community service programs provide both on-campus and off-campus instruction in a variety of subjects for the educationally disadvantaged at the pre-college level as well as noncredit continuing education classes for the community at large.

In order to further the development of a free society of responsible individuals. Union College is committed to student involvement in institutional governance as an aid to the development of responsibility and leadership capabilities. Through student outreach programs a philosophy of life is encouraged that has a significant place for using one's time, talents, and resources in voluntary service activities.

A STATEMENT OF VALUES

Union College is dedicated to preparing students for living informed, socially useful, personally fulfilling, and spiritually vital lives. This commitment involves using knowledge within a context of Christian values. Although it is recognized that as an educational institution Union College has an obligation to help students understand other value systems and their effects when translated into specific areas of human activity, as a United Methodist Church-related college Union affirms an institutional stance based on Christian values such as have evolved in the Judeo-Christian tradition and are contained in the Old and New Testaments. Our intent is both to confess and to practice the Christian faith in all our endeavors.

IMPLICIT IN THIS STATEMENT OF VALUES IS THE REQUIREMENT THAT UNION COLLEGE COMMIT ITSELF TO THE VALUES ENUNCIATED BY ASSURING TO THE MAXIMUM EXTENT POSSIBLE:

To Its Students

(1) the fullest of opportunities to receive a quality liberal arts education.

(2) strong attention to, and genuine concern for, each individual in the college community, including emphasis upon the unique value of each person.

(3) a continuing concern that they learn to appreciate and accept life styles that reflect integrity, honesty, compassion, and social responsibility.

(4) a commitment to provide the experiences necessary to acquire a meaningful understanding of and dedication to Christian love and service to both God and neighbor.

To Its Faculty and Staff

(1) a campus atmosphere of responsible academic freedom dedicated to the constant search for truth.

(2) an academic community dedicated to openness and acceptance of its pluralistic composition, including personnel policies and practices that are recognized without regard to race, creed, sex, color, physical handicap, or national origin.

(3) a constant reminder of the power of Christian example.

To Its Alumni, Benefactors, and the Parents of Its Students

(1) faithful and responsible stewardship of all funds and gifts entrusted to the College.

(2) continuance of meaningful traditions, particularly those unique to a church-related institution, while at the same time encouraging the exploration and implementation of new value-centered activities especially of the type that have strong Christian relationship.

(3) continuing appreciation for the rich heritage of Union College as an independent, nonsectarian, church-related institution in the Christian tradition.

To The United Methodist Church

(1) acceptance of Jesus Christ as God's revelation of Himself, and of the Holy Spirit as God's continuing presence in life.

(2) acceptance of the moral standards which have evolved in the Judeo-Christian tradition as our ideals for living, working and witnessing in an academic community and as the standards for our teachings and personal example.

(3) sensitivity to and a conscientious effort directed toward the satisfaction of the spiritual needs and concerns of the college's students, faculty, and staff.

(4) meaningful responsiveness to and support for The United Methodist Church.

To Barbourville, Knox County, and the Appalachian Area

(1) continuing appreciation that Union College is an integral, social, educational, and spiritual part of the Barbourville and Knox County communities, and of Appalachia.

(2) dedication of the college's resources in teaching, research, and service to the enrichment of the communities of which Union College is a vital part.

(3) a commitment of the personal resources represented by the college's student, staff, and faculty to local churches of the immediate and larger community.

ADMISSIONS AND GENERAL INFORMATION

ADMISSION REQUIREMENTS

The minimum requirements for admission as a regular student at Union College are: A high school diploma from an accredited high school, or a high school equivalency certificate based on the GED tests, acceptable ACT or SAT scores, and two letters of recommendation.

The high school transcript should include 3 units of English, 2 of Mathematics, 2 of Social Studies, and 2 of Science. A foreign language is recommended.

Applicants who have previously attended college must have their college transcripts sent to Union. All college work will be considered when an admission decision is made.

The College will decide on the admission of a student within one week of the receipt of all pertinent material: high school and/or college transcripts, ACT or SAT scores, and letters of recommendation.

High School Special Program

A student who has completed the junior year of high school may qualify for the High School Special Program. The student must have a "B" average and must pass all sections of the Placement Test given by the College to be admitted to the program. Two letters of recommendation are required. The student may then enroll for 6 hours or less in any one term for one-half the established summer rate. This scholarship terminates when the student graduates from high school.

Procedure For Admission

Application for Admissions

The application form may be obtained from the Admissions Office, Union College, Barbourville, KY 40906.

Enrollment Deposit

There is no application fee at Union College. All new students are required to pay an enrollment deposit of $25.00, normally by July 1, of which $15.00 is applied to tuition and refundable until August 1.

Secondary School Transcript

Each applicant must authorize the release of his or her transcript by signing the application form. The Admissions Office will write to the applicant's high school for an official copy of the transcript.

GED Acceptance

An applicant may be admitted on a high school equivalency certificate based on the General Education Development Tests, provided that the scores earned are equal to or above the minimum recommended for college entrance by the American Council on Education.

Entrance Tests

All candidates are required to take the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Applicants should have the results forwarded to Union College. The Union College institution number is 1552 for the ACT and 1825 for the SAT.

A test application blank and bulletin of information may be obtained from the secondary school guidance office or from Union's Admissions Office.

Union College will record a summary of transfer credits, indicating the total number of hours accepted and the quality point average at the sending institution. Union accepts only transfer work in courses with a grade of "C" or above. This policy applies only to credits transferred on a course-by-course basis, not to junior college students who transfer entire degree programs.

The student's grade point average will be calculated solely on the basis of grades earned at Union College.

Advanced Placement

Students who have successfully passed one or more of the Advanced Placement Tests of the College Entrance Examination board may ask for advanced placement and credit when they submit their scores for application. The Office of the Registrar will decide on the amount of credit to be granted and the college course that may be omitted. Scores of 3, 4, or 5 are required for such action.

Classification of Students

Freshman	less than 32 semester hours
Sophomore	32 semester hours
Junior	64 semester hours
Senior	96 semester hours

Summer Orientation

A one-day Summer Orientation program is required for all students who are entering Union College for the first time.

The program includes placement testing, academic advising, advance registration, and financial counseling and is designed to help students make a successful transition to college.

Early Start Summer Program

A high-school graduate who has not attended college since graduation may be eligible for the Early Start Summer Program. The student must graduate in the upper 50% of his or her class and must have a minimum ACT English score of 16 or SAT Verbal of 410. Two letters of recommendation are required.

This student must enroll for 6 semester hours at Union each summer session preceding fall entry. Union College will provide a scholarship for one-half of the tuition charges. If the student lives on campus, there will be no summer room charge. All students must pay $50.00 refundable room deposit.

If the student's summer grades average 3.0 ("B" average), the student will receive a $250 scholarship as a full-time student in the fall. If the 3.0 average is maintained in the fall, the student will receive another $250 scholarship in the spring. After the spring semester, the scholarship terminates.

Health Certificate

The required physical examination form is mailed by the Admissions Office and should be returned as directed.

Admission of Adult Students

Students 25 or older are not required to furnish ACT or SAT scores. Applicants who lack the GED are urged to contact Union's Adult Education office for assistance.

Admission of Foreign Students

Foreign students must complete the regular admission process (ACT or SAT is not required of foreign students). After the student is accepted, the College must receive payment for the student's first semester costs for tuition, room and board, and fees. This payment must be received at least one month before the beginning of the semester. The student will not be allowed to move into the dormitory or register for classes until payment is completed.

In order to be considered for admission, a foreign student must show English proficiency with a minimum score of 500 on the Test of English as a Foreign Language (TOEFL), or 107 on the ELS English Proficiency, or 70 on the Michigan English Placement Test.

When the admission process is completed, a foreign student is obligated to stay at Union for at least one year. No official transcript or recommendation will be released until the student fulfills the year's obligation. If a student leaves before one year, he must be reported to the Immigration and Naturalization Service. One year is interpreted as two full semesters, excluding summer sessions.

The student must pursue a full course of study. Those who drop to part-time status must by law be reported to the Immigration and Naturalization Service. No visas and/or passports will be renewed until the student's account is paid in full.

Transfer and Advanced Standing

Students transfering at least 30 hours of credit are excused from Entrance test requirements.

Credits earned from an accredited community college, junior college, senior college, or university can be transferred to Union College. Sixty-seven semester hours is the maximum amount of junior college or community college credit which may be counted toward a degree.

Transfer credits will be accepted at the level of the initiating institution. In case of an appeal for upper division credit when the course was taken at a junior college (or as lower division work at a senior college), a committee consisting of the Registrar, the division chairman of the area involving the course, and an appointed faculty member from that discipline will review the content, text, level of work, etc., to determine if the upper division credit should be granted.

FINANCIAL AID & FEES

TUITION AND FEES

College Expenses

The academic year is divided into two regular semesters, Fall and Spring. In addition, a special May Interim and two special summer sessions are offered, convening in the months of May, June and July respectively. Applicable tuition and fees are as follows.

Undergraduate Expenses (per regular semester)

Tuition (10 to 17 semester hours)	$2,160.00
Room and Board* (19-meal week)	$1,025.00
Private Room* (additional)	$ 100.00
Full Time Students	
Activity Fee	$ 25.00
Total for Boarding Student	$3,210.00
Total for Non-Boarding Student	$2,185.00
Part-time tuition for registering less than 10 or more than 17 semester hours, per semester hour	$ 105.00

(Undergraduate students over age of 50 pay 50% of the established tuition rate.)

Graduate Expenses

Full-time tuition (10 to 17 semester hours)	$2,160.00
Part-time tuition (per semester hour)	$ 105.00
Activity Fee (boarding students only)	$ 25.00

Summer Session Expenses +

Tuition, Undergraduate (per semester hour)	$ 105.00
Tuition, Graduate (per semester hour)	$ 105.00
Tuition, High School Special (per semester hour)	$ 52.50
Room and Board (19-meal week) each term, 5 weeks**	$ 330.00
Room and Board (Sunday dinner through Friday lunch — 15-meal week) each term**	$ 280.00
Private Room, each term (additional)	$ 30.00

May Interim Term Expenses +

Tuition, Undergraduate (per semester hour)	$ 105.00
Tuition, Graduate (per semester hour)	$ 105.00
Room and Board (19 meal week**)	$ 200.00
Private Room (Additional)	$ 20.00

Note: May Interim tuition may be waived for a full time student who carries 14 semester hours or less in the preceeding spring semester.

Other Expenses

The fees listed below are not a part of the traditional tuition and board and room charges.

Audit Fee (per semester hour)	$ 15.00
Late registration fee***	$ 15.00
CLEP — Advanced Tests only (per test)	$ 28.00
CLEP Credit Recording fee (per course equivalent)	$ 25.00
Portfolio Fee (per semester hour)	$ 25.00
Contract Course (per semester hour)	$ 25.00
Examinations:	
late final examination fee	$ 15.00
credit by examination (Institutional) (per credit hour)	$ 25.00
Graduation Fees:	
Associate degree or Diploma	$ 25.00
Bachelor's degree	$ 30.00
In absentia	$ 25.00
Music Lessons:	
Part-time and Special Students (per semester hour)	$ 80.00
Applied Music (per semester hour)	$ 65.00
Private Lesson (Continuing Education) (per semester hour)	Varies
Transcript-after first copy (one week's notice required)	$ 3.00
Student Teaching Fee	$ 100.00
Special Lab or Studio Course	$ 25.00
College Court Rental, per month (all utilities furnished)	$ 140.00

*Vacation periods are not included in the above quotations. Dormitories and food service are closed during vacations and other periods as noted in the undergraduate calendar. The College

reserves the right to entertain delegates to conventions and other related groups in the residence halls during vacation periods. Students will be notified in advance of such contemplated occasions and assurance given regarding the safeguarding of their personal property during such occupancy.
** All board charges are subject to change without notice, pending contract agreement with the food service.
***Late registration fee can be waived by the Registrar for sufficient reason if permission is requested in advance.
+ Expenses for May and Summer Sessions are effective June 1, 1987.
Tuition, Fees and other expenses are subject to change. All charges will be announced in the class schedule or through the media.

PAYMENT POLICY

I. Financial Clearance

A student will be cleared for registration only if any previous balance has been paid. The new semester's account must then be paid in full, or a signed payment plan and first installment completed. Summer school and short sessions must be paid in full at the date of registration — no payment plan is permitted for summer or short sessions.

Authorized financial aid will be credited to the student's account and a payment plan set up for the balance. In case the financial aid is anticipated but not yet authorized, the student must pay as a first installment one third of the **total** costs.

A student having any unpaid balance will not be cleared for the release of an official report of grades, a transcript of credits, or a diploma.

II. Finance Charge

A monthly finance charge of one and a half percent (18% annual rate) will be added to the unpaid balance on all student accounts at noon on the last working day of each month.

III. Payment Plan

If the new semester's account cannot be paid before registration, a payment plan can be completed and a first installment paid down. The payment plan requires one-third payment on each of the following dates after which the student may be withdrawn from courses if the account is not paid up:

1. On or before fall semester or spring semester registration — one-third.

2. Due October 5th (fall semester) or February 5th (spring semester) — one-third + 1½% finance charge on the balance.

3. Due November 5th (fall semester) or March 5th (spring semester) — one-third + 1½% finance charge on the balance.

Any student who owes a balance on his or her account after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

REFUND INFORMATION

Since faculty contracts and other commitments are made by the College for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

1. A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.

2. A full refund may be obtained for a class only if a student has never attended that class.

3. Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.

4. Tuition and room charges will be refunded on the following basis:

   Regular Semester — Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week. Refund is based on the tuition charges less $10 student center allocation, $1 class dues, $1 student senate fee, and $3 for I.D. card.

   Summer and Short Terms — Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.

5. **Refund of Overpayment on Student Account** — If a student makes an overpayment on his or her account, a written request for refund must be submitted to the Business Office within one year after the end of the last academic term for which the student was enrolled.

6. **Room Reservation Deposit** — This deposit will be refunded if the request is made

in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor is no longer enrolled as a student at Union College and that he or she has left the housing facility undamaged and does not owe other bills. The request for this authorization must be made within one year after the end of the academic term for which the student was enrolled.

7. Enrollment Deposit — $15.00 will be refunded upon receipt of written request prior to August 1 for the fall semester or 30 days before the first day of class for any other academic session. Refund request should be submitted to the Business Office.
8. Questions regarding refunds may be addressed to the Dean of Students or appealed to the Vice President for Student Affairs.

FINANCIAL ASSISTANCE

Student expenses. In planning to attend Union College a student should expect the following typical expenses for an academic year: tuition and general fees $4,370, room $600, board $1,450, books and supplies $300. In addition, allowance should be added to these figures for personal expenses, medical insurance, transportation, and extra charges for special courses (such as laboratory fees, etc.). The Office of Student Financial Aid will consider the total costs for attendance, including the items listed above, when making a financial aid commitment.

Purpose of financial aid program. In addition to its own scholarship funds, Union College participates in all federal programs including the Pell Grant Program. Residents of Kentucky are also eligible to receive state tuition grants and loans. Information on Union College scholarships will be found on the following pages.

Students applying for financial aid are considered for all programs for which they are eligible. The amount of financial aid awarded is generally a combination of grant, loan, and employment, and is based on the financial need of the student. Need is determined by subtracting the resources of the student and the contribution of his or her parents from the total student expenses. The parents' contribution is estimated on the basis of the amount of their income and assets as well as a consideration of taxes, medical expenses, and other liabilities of the family. An independent, objective, nationally recognized method of analysis developed by the College Scholarship Service is used to evaluate the family's financial circumstances. All financial aid awards to students are determined by Union College's Office of Student Financial Aid.

Procedures for applying for financial aid. Students must apply for financial aid by submitting a Financial Aid Form (FAF) to the College Scholarship Service. Students applying by March 15 will have a greater opportunity. However, financial aid will still be available after this date. The FAF is used to apply for the Pell Grant, the Kentucky Tuition Grant, the Supplemental Educational Opportunity Grant (SEOG), College Work-Study, Perkins Loan (formerly National Direct Student Loan) and any institutional funds. The FAF may be obtained from a high-school guidance office or the Office of Student Financial Aid. Students should specify 1825 as the code number for Union College in the appropriate section of the FAF.

A Financial Aid Notification along with information about any aid offered will be sent from Union College to each student who applies.

Procedures for reapplying for financial aid. A student must reapply for financial aid each academic year. However, aid usually continues at the same level each year unless a student's resources or the expected contribution of his or her parents change. All enrolled students receiving aid automatically receive information about applying for renewal awards. Other enrolled students should request applications by February 15.

In order to continue to receive financial aid, a student must be making satisfactory progress toward his or her degree. A student may be said to be making satisfactory progress during the first semester on academic probation. However, he or she is not considered to be making satisfactory progress should he or she continue on academic probation for a second consecutive semester, or fail to complete 50% of the courses for which he or she enrolls in any one semester. The maximum number of semesters for which financial aid may be received is ten.

Grants

Pell Grant — A program providing direct grants from the federal government. The student receives an eligibility report (as a result of his or her Financial Aid Form application) which can be submitted to Union College for payment. It is expected that the maximum amount for the Pell Grant for 1987-88 will be $2,100.

Supplementary Educational Opportunity Grant (SEOG) — A program designed by the federal government to assist students with exceptional financial need. The grant is permitted in a range from $200 to $2000 per year for students who demonstrate academic potential.

Kentucky Tuition Grants — The program provides grants to students who are residents of the Commonwealth of Kentucky and who demonstrate a need through the analysis of the Financial Aid Form application. The maximum grant for 1987-88 will be $1,700.00.

Employment

College Work-Study Program — If a student still requires financial support to meet college costs after the federal and state grants are awarded, the student may be awarded an amount to be earned on an hourly basis in a campus department. This employment program is campus-based support from the federal government. Either undergraduate or graduate students can qualify if the Financial Aid Form results indicate a need.

Work-Grant — If a student cannot qualify for employment on the basis of financial need and the College needs the special skills of the student, the student can work for an amount of tuition waiver.

Coop Program with Tremco, Inc. — is available to a qualified sophomore, junior, or senior majoring in chemistry.

Loans

Perkins Loan (formerly National Direct Student Loan) — Federal loan funds are made available to students who have financial need and who maintain satisfactory progress towared graduation. Repayment at a 5% interest rate begins six months after graduation or withdrawal from school.

KHEAA Guaranteed Student Loan Program — This loan program exists in Kentucky and other states as a way to borrow from private commercial lenders to finance college education on the undergraduate and graduate levels. Repayment at 8% interest begins 6 months after graduation or withdrawal. Minimum payments are $50.00 a month. Eligibility depends upon at least half-time enrollment status, a "C" average for undergraduate students, and a reporting of family income, by filing the FAF. The loans are insured by the state.

United Methodist Student Loan Fund — Students who are members of The United Methodist Church and maintain a "C" average may apply through Union College for a loan at 6% interest from the Board of Education of The United Methodist Church.

Charles M. and Mary D. Grant Loan Fund — The Charles M. and Mary D. Grant Foundation has provided an endowed loan fund for Appalachian students who demonstrate a real need and who are in good standing at the College.

Hensley Emergency Loan Fund — Mr. and Mrs. Burton F. Hensley of St. Cloud, Florida, have established a loan fund for single students at Union College who have emergency situations requiring small short-term loans.

The Rev. and Mrs. Erwin King Loan Fund — The Rev. and Mrs. Erwin King have established a loan fund to aid worthy ministerial students in the junior or senior year at Union College.

Guy H. Williams Loan Fund — Dr. Guy H. Williams of Cleveland, Ohio, has established a loan fund in memory of his wife, Anna Williams. The fund is available to worthy students who have spent two years at Union College and have a "C" average or better.

The Beverly P. and Mossie B. Wilson Loan Fund — this loan fund has been established by Dr. and Mrs. O.J. Wilson of Louisville, Ky., in memory of Dr. Wilson's mother and father. The loans shall be given to students majoring in English and repayment shall be in accordance with the guidelines of the College's loan fund. The income from this fund shall come from the Beverly P. and Mossie B. Willson Trust Fund.

The Charles Henry and Glennora Rominger Krieger Student Loan Fund — This loan fund, established by the late Glennora R. Krieger of Ft. Thomas, Kentucky, provides loans to worthy and needy students from the Appalachian counties of eastern Kentucky. The terms of the loan are the same as those of the United Methodist Student Loan Fund.

Other Loan Funds — Student loans are available from a number of funds not specifically designated for Union College students, but for which Union College students are eligible. Specific information may be obtained from the Office of Financial Aid.

Loan-Grants

United Methodist Church Grants-in-Aid — Union College will provide grants of $500 for full-time United Methodist students and will request the student's home church to match the grant. If the student plans to go into the Methodist ministry or if the student is a dependent of a Methodist minister, then a $1,000 grant will be provided by the College. In each case, a request is made to the local church to match the grant.

The grants are for one year, renewable, and may be applied to any Union College charges (tuition, fees, room and board on campus). A

student is eligible for only one of the above grants.

College Employee Scholarships — Full-time employees of Union College are eligible for tuition remission scholarships. Their spouses and/or unmarried dependent children may receive one-half tuition scholarships. A tuition grant at other colleges participating in the Tuition Exchange Program is also available to employees' unmarried dependent children.

Full-time employees hired after January 1, 1975, will not be eligible for tuition scholarships for spouse or children until they have been employed for six months unless they are under annual contract. Dependent children are not given employee scholarships for graduate work. Eligible persons must apply at the Business Office at least one week prior to registration.

Assistantships

Senior Assistantships are made available annually in the academic divisions. The assistantships are open to students of outstanding scholastic ability who exhibit great promise of future usefulness and who are considering college teaching. The duties of the Senior Assistants include occasional classroom lectures, research, remedial work with beginning students, assisting in laboratories, etc. The Assistants are expected to spend a minimum of twelve hours per week on the work assigned. The awards are made by the Scholarship Committee upon recommendation from the division chairmen. Senior Assistants receive a stipend of $600 per year.

Scholarships

A full-time student who qualifies for scholarship assistance on a merit basis may be entitled to more than one of the following scholarships in any one academic year. The total amount of scholarship and other financial aid cannot exceed 100% of the annual college costs.

Valedictorians and Salutatorians are awarded $2,500 and $2,000 respectively. Students in the top 10% of their graduating class are awarded $500. Evidence of high-school rank must accompany the transcript, certified by the high school attended. These scholarships are renewable every year of the student's undergraduate program at the original amount, if a minimum cumulative grade point average of 3.5 is maintained, or at two-thirds of the original amount for a 3.0 minimum average.

Academic Scholarships based on ACT/SAT scores are available as shown in the chart below. These scholarships are renewable for succeeding years at the original amount if the student maintains a minimum cumulative grade point average of 3.5, or at two-thirds of the original amount for a 3.0 minimum average.

ACADEMIC SCHOLARSHIP CHART

ACT Scores	SAT Scores	Award
20	900	$600
21	950	$700
22	1000	$800
23	1050	$900
24	1100	$1,000
25	1150	$1,200
26	1200	$1,400
27	1250	$1,600
28	1300	$1,800
29 and up	1350 and up	$2,000

Junior College Scholarships — in the amount of $500 are awarded to graduates of junior or senior colleges who have earned the A.S. degree with a grade point average (GPA) of at least 2.5 on a 4.0 scale. These scholarships are renewable in the senior year at $500 if the student maintains this average, or increase to $600 if the student increases his grade point average to 3.0.

Alumni Scholarships — The Alumni Association of Union College awards six scholarships of $500 annually. These scholarships are given on the basis of character, need, and evidence of future usefulness. They are open to all full-time undergraduate students with a minimum 2.8 GPA.

Dr. and Mrs. Edward S. Amis Endowed Scholarships — Dr. and Mrs. Edward S. Amis of Fayetteville, Arkansas, have endowed a scholarship fund at Union College. Dr. Amis received the Distinguished Alumni Award in 1985. The two $500 grants will be given annually to two full-time Christian-service students who excel in local church programs.

The Ashland First United Methodist Church Scholarship — The members of the First United Methodist Church of Ashland, Kentucky, have endowed a scholarship for a "worthy student", preferably a member of this church. If no member-students are eligible, the scholarship may be awarded to any United Methodist student from Kentucky.

The George L. Bagby Scholarship/Loan Fund — The late Mr. George L. Bagby of Wood-

ford County, Kentucky, established a student financial aid endowment totaling $405,000 including accumulated interest, and this supports both scholarships and loans for Kentucky students.

Bank of Harlan Scholarships — A number of scholarships are given annually to qualified students from Harlan County by the Bank of Harlan. The grants are determined according to financial need and academic excellence.

Barbourville Kiwanis Scholarship — The Kiwanis Club of Barbourville, Kentucky, has supplemented an educational fund originated by Mr. C.F. Heidrick and established a scholarship fund at Union College for promising students from Knox County, Kentucky. The scholarship is for $800.

Barbourville United Methodist Church Music Scholarships — Annually the First United Methodist Church of Barbourville, Kentucky, awards four scholarships of $200 (for a total of $800) to music students. Consideration is given for participation in the music program of the local church.

Bell County Scholarship — A friend of Union College from Bell County, Kentucky, has established a scholarship endowment with the income to be awarded annually to a Bell County student. This grant will be approximately $350 per semester.

Henry C. Black Memorial Scholarship — This scholarship of $250 is given as a memorial to Mr. Henry C. Black, a graduate of Union College, to a freshman graduating from high school in Kentucky or Tennessee.

John A. and Hannah P. Black Memorial Scholarships for Christian Workers — The late Dr. and Mrs. Henry C. Black, of Johnson City, Tennessee, endowed a scholarship that provides an annual grant of $500 for a promising student who plans a life of service in The United Methodist Church.

Dr. and Mrs. James F. Blair Scholarships — Dr. and Mrs. James F. Blair of Barbourville, Kentucky, have endowed two $600 scholarships for students from Knox County, Kentucky. They are awarded annually to students in the sophomore, junior or senior year.

The Annette and Berry Burnaw Scholarship Endowment — Given by James Burnaw, an alumnus of Union College in honor of his parents. The yield is designated for a student from Nicholas County, Ky. Should there be no qualified student from this area during a given year, the scholarship will be given to some other Kentucky student.

The Eulalia Serrano Cabrero Memorial Scholarship — Miss Carmen Cabrero, '64, Jacksonville, Florida, has established a scholarship in memory of Eulalia Serrano Cabrero, a 1964 graduate of Union College. The $300 scholarship is available to a needy student of a minority background interested in a service profession.

Dr. and Mrs. Carlo B. Cawood Memorial Scholarship — The late Dr. and Mrs. Carlo B. Cawood of Harlan, Kentucky, endowed a scholarship to be awarded to a Harlan County student, with preference being given to a student from the Harlan United Methodist Church. The scholarship may be renewed. The grant is $800 per year.

Mamie D. Chambers Endowment Fund — The late Mamie D. Chambers of Maysville, Kentucky, established an endowment fund, the income from which is used to help support grants to needy and deserving students.

The Dr. Emerson G. and Edith Cobb Chemistry Endowment Fund — Dr. and Mrs. Emerson G. Cobb of Burson, California, have established an endowment for the support of the College's Chemistry Department. This fund may evolve into a chemistry chair or into a scholarship fund as per the wishes of the donor. Dr. Cobb, a 1928 graduate of Union College, headed Union's chemistry program and later became head of the Department of Chemistry at the University of the Pacific, Stockton, California. Mrs. Cobb, the former Edith K. Cheap, is a 1929 Union graduate with a chemistry major.

The Reverend Howard and Kathryn Coop Scholarship — The Reverend Howard and Kathryn Coop Scholarship. Established in honor of the Coops by friends in churches where they have served, the Coop Scholarship is designated for Methodist students with preference being given to Kentucky Methodists.

The Davies Memorial Scholarship — The family and friends of Miss Ellen Davies and Dr. T.R. Davies have endowed a $1,000.00 scholarship to be awarded annually to a freshman or to an upperclassman with a "B" standing from Bell, Clay, Harlan, Knox, Laurel or Whitley County.

The Doan-Woody Scholarship — Oatis Doan of Harlan, Ky., has endowed a scholarship that provides an annual grant to a southeastern Kentucky student who has a 3.25 grade-point

average. The grant, a memorial to Oatis Doan, Sr., is in honor of Mary H. Doan and Dr. Lester G. Woody, and may be renewed if the student maintains an overall grade-point average of 3.00 or better.

Dr. Robert M. Drew Endowment Fund — The Commission of Missions of the Hyde Park Community United Methodist Church, of Cincinnati, Ohio, has established an endowment fund in honor of the Rev. Dr. Robert E. Drew. This fund will be used for scholarship grants to foreign students.

Dr. Franklin Duncombe Memorial Fund — Mrs. Helen Duncombe of Haverford, Pennsylvania, has established an endowment fund in memory of her late husband. Income will be used to finance grants-in-aid for students planning to enter the United Methodist ministry.

Alfred I. DuPont Scholarship Fund — The late Mrs. Alfred I. DuPont of Wilmington, Delaware, established scholarships for needy students having high academic potential. Preference is given to students from the Appalachian counties of Kentucky and Appalachian regions in adjoining states.

E. Nettie Edinger Memorial Scholarship — The late Mr. Joseph Edinger endowed this scholarship in memory of his sister. The scholarship is awarded annually to a deserving and worthy student enrolled at Union College.

Dr. and Mrs. J. Edward Faulkner Memorial Scholarship — This $350 scholarship is awarded to a student who plans a life of service in the healing arts, with preference being given to a predental student.

John D. Feather Scholarships — The late John D. Feather of Corbin, Kentucky, and a graduate of Union College in the class of 1940, has endowed scholarships to Union College for students from Corbin High School. The trust fund will provide funds for this scholarship program.

The GAR Foundation Endowed Scholarships — The GAR Foundation has endowed scholarships for Appalachian students with priority being given to those from the Fifth Congressional District.

W. Glover Giles Memorial Fund — The late Mr. W. Glover Giles of Louisville, Kentucky, a trustee of Union College, established an endowment fund by gifts during his lifetime and by a bequest. Income is used to fund Honor Scholarships at Union College.

John O. and Harriet B. Gross Memorial Scholarship — Family and friends have endowed a scholarship. Dr. Gross was president of Union College during the years 1929-1938. The scholarship is awarded annually to a Kentucky senior student with preference being given to one from Northern Kentucky. The stipend and requirements are the same as for "United Methodist Scholarships."

Hugh and Joyce Haggard Memorial Scholarship — A scholarship fund memorializing Dr. Hugh E. and Joyce A Haggard, and their children, Walter M. and Stephanie L., has been established by the parents and brother of Dr. Hugh E. Haggard. Income from the fund provides an annual scholarship for a full-time student at Union College. The $1,800 scholarship will be awarded to a worthy student on the basis of financial need.

Dewey and Rachel B. Hendrix Memorial Endowment — Dwight M. Hendrix, an alumnus of Union College and his sister, Mrs. Mary Katherine Hendrix Brashear of Hyden, Leslie County, Kentucky, have established an endowment to memorialize their parents. The endowment is designated for financial aid, with the income to assist needy and qualified students enrolled full-time. Students who are residents of Leslie County, Kentucky, are given preference. Should no one qualify, then the grants are to be given to students from the Appalachian Region of Kentucky.

Walter S. and Ida Cole Hudson Scholarship Fund — The late Ida Cole Hudson of Barbourville, an alumna of Union College, endowed, through a bequest, a fund to provide scholarships to students from Knox County, Kentucky.

Irene Hughes Scholarship — Miss Irene Hughes (AB '37; MA '63), Barbourville, Kentucky, provides an annual scholarship of $250 for a freshman girl, a graduate of Knox Central High School, who has been a member of the High School Honors English Class and who exemplifies Christian principles of conduct. The scholarship will be awarded by the Alumni Scholarship Committee.

Dr. W. A. E. Johnson Memorial Scholarship — Mrs. W. A. E. Johnson of Lawrenceburg, Kentucky, and friends have endowed a scholarship in memory of her late husband, a Union graduate and long-time friend of the College. The scholarship is designated for preministerial or Christian-service students.

Professor and Mrs. Millard L. Jordan Scholarship — Professor and Mrs. Millard L.

Jordan of Lakewood, Ohio, have established a scholarship fund at Union College to aid worthy Appalachian students.

Junior Study Club Scholarship — The Junior Study Club of Barbourville, Kentucky, provides a $200 scholarship to aid worthy students from Knox County, Kentucky. The scholarship is awarded to a girl who graduated from a high school in Knox County and who is a junior or senior at Union College.

Kentucky River Coal Corporation Scholarship — A scholarship endowment has been established by the Kentucky River Coal Corporation, Lexington, Kentucky, for needy students from Knott, Leslie, Letcher, and Perry counties, Kentucky. Recipients must have a grade point average of at least 2.0 during their senior year in high school, or must have or maintain a grade point average of at least 2.5 at Union College.

Jeffrey W. Kronk Memorial Scholarship — Mr. and Mrs. Walter F. Kronk of Huntsburg, Ohio, have endowed a scholarship for a needy, qualified student for Geuga, Lake, or Astabula counties in Ohio, or from the Appalachian counties of southeastern Kentucky. The scholarship is in memory of their son, Jeffrey, who was enrolled at Union College from 1963 through 1967. Should there be no qualified students from these areas in any given year, the endowment income will be used to support the Lincoln-Civil War Collection at Union College.

Verna Noe Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, has established a $500 annual scholarship at Union College in memory of his mother, Mrs. Verna Noe Landrum. The award is to go to a student from Harlan County.

W.B. Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, provides annually a scholarship of $500 in memory of his father for a promising United Methodist ministerial student. The student benefited by this scholarship must exhibit outstanding personal attitudes of religious sincerity, devotion, and earnestness in purpose.

London Laundry Scholarship — The London Laundry & Dry Cleaners, London, Kentucky, has established an annual $350 scholarship to assist, during his freshman year at Union College, a student who has graduated from a high school in southeastern Kentucky.

Dorothy Lucas Memorial Fund — An endowment fund has been established in memory of Miss Dorothy Lucas, registrar of Union College for many years and beloved friend of students. The income from this fund is used to support various student-aid activities of the College.

The Magee Christian Education Foundation awards annually a scholarship for students entering Christian vocations or professions or to those of economic need who are of Christian commitment.

Gayle Miles Scholarship — An endowed scholarship has been established by friends and former students of the late Gayle Miles for students from Barbourville High School. Miss Miles taught at both Barbourville Elementary and Union College.

John and Minnie B. McGaffee Trust Fund — Dr. and Mrs. O.J. Wilson of Louisville, Kentucky, have established the John and Minnie B. McGaffee Trust Fund for the purpose of providing financial asistance to worthy and needy preministerial students. The income may be used for grants or loans, with preference being given to students from the Appalachian Region of Kentucky.

Drs. Robert and Gertrude McGuire Endowed Scholarship — Drs. Robert and Gertrude McGuire, graduates of Union College, have established an endowed scholarship for a Union student having a financial need and maintaining a minimum of a B average.

National United Methodist Scholarships — The Board of Education of The United Methodist Church makes available annually several United Methodist Scholarships of $500. The awards are made on the basis of character, need, and scholastic ability. Only students having at least a "B" average are eligible.

Mr. and Mrs. Hiram H. Owens Memorial Scholarship — Mrs. Sampson B. Knuckles (Jean) and Mrs. Buford T. Clark (Eleanor) have endowed a scholarship for a Knox County student in memory of their parents, Mr. and Mrs. Hiram H. Owens. Mr. Owens was a well-known lawyer and Mrs Owens (Georgia Black) was the daughter of James D. Black, a governor of Kentucky and a president of Union College.

The Frances L. Patridge Scholarship — Friends have endowed a scholarship in honor of Dr. Frances Patridge, a friend and employee of the college longer than any other faculty member, with over 40 years of service. Her last rank was Vice President for Student Affairs and Associate Professor of Health and Physical Edu-

cation. The yield will be placed in the general scholarship fund and designated for upper division students with a 2.5 or better grade point average.

Emory Evan Peter Memorial Endowment — The late Mrs. Laura P. Dickey of Louisville, Kentucky, established an endowment fund in memory of her brother, Emory Evan Peter. The income from this fund will be used to help finance the college student-aid program.

Donald Rankin Memorial Scholarship — Friends of Donald Rankin, a Union College student killed in Vietnam, have provided a scholarship that pays $350 annually to a young man from Kentucky. Basis for awarding the scholarship is need and the earnest desire for a college education.

The Marvin Robbins Endowed Memorial Scholarship — An endowed scholarship has been established in memory of Mr. Marvin Robbins, a graduate of Union College. The applicant must be an upperclassman who is a Bell County High School Graduate. The selection will be based upon academic achievement and financial need.

E.O. Robinson Mountain Fund Scholarship — The E.O. Robinson Mountain Fund has established an annual scholarship program to assist needy students who reside in the Appalachian Region of eastern Kentucky. Students receiving these scholarships should give promise of being able to complete their academic work successfully. They should be and remain unmarried while receiving assistance from this scholarship. Qualified persons should apply to the Office of Financial Aid.

Sanders Honor Scholarships — The late Colonel Harland Sanders of Shelbyville, Kentucky, provided a number of honor scholarships annually. Mrs. Claudia Sanders, his widow, continues to provide them. The Sanders Honor Scholarships are limited to students who do not use tobacco and alcoholic beverages.

Sims Scholarship Fund — Reverend and Mrs. Harry C. Sims of West View, Kentucky, have established a scholarship fund at Union College to aid worthy students preparing for The United Methodist ministry.

The Catherine Faulkner Singer Memorial Scholarship — This $400 scholarship has been established by friends, alumni, and her daughter and son — Marcia and Donald — for the son or daughter of an alumnus of Union College. The honoree was Director of Alumni Affairs from 1961 to 1978.

Cawood Smith Harlan County Scholarship — Dr. Cawood Smith, Harlan County attorney, has established an endowment for scholarships to be awarded to the son or daughter of miners from Harlan County, Kentucky. The recipient shall be a resident of Harlan County and is to be selected upon the basis of need, scholarship, and promise of future usefulness in the coal region. This annual grant shall total $2,400.

Margaret Carter Stacy Scholarship Fund — Margaret Carter (Mrs. Cortis K.) Stacy of West Liberty, Kentucky, has endowed a scholarship fund for the support of students from Morgan County, Kentucky, or for Appalachian students. Mrs. Stacy is a strong United Methodist with interest in higher education for the youth of Appalachia.

Dr. and Mrs. Charles B. Stacy Memorial Scholarship Fund — A scholarship fund has been endowed in memory of Dr. and Mrs. Charles B. Stacy of Pineville, Kentucky, for students from southeastern Kentucky. A long-time friend of Union College, Dr. Stacy had an abiding interest in education of the Appalachian region.

The Steele-Reese Foundation Endowed Scholarships — The Steele-Reese Foundation of New York City has established a $100,000.00 endowment with the yield being designed for scholarships for qualified Appalachian students.

The Stevens Family Scholarship Fund — Dr. Erland P. Stevens, a Union College trustee of Ashland, Kentucky, and Mrs. Stevens have established a scholarship fund with 80 percent of the earnings being distributed annually as scholarship grants and with 20 percent of the yield being reinvested in the Stevens Family Scholarship Fund. The scholarships shall be a part of the College's general scholarship fund.

Lewis Ogden Stiles Endowment Fund — The late Mrs. Lewis Ogden Stiles of Waco, Texas, established this fund to memorialize her late husband, Lewis Ogden Stiles, and his first wife, Pearl Long Stiles, both faithful United Methodists of Irvington, Kentucky. The income from this fund will be used to finance grants-in-aid under the college loan-grant program to United Methodist students planning to enter the ministry of the Kentucky or Louisville Annual Conference.

The Walter B. and Geraldine G. Sutton Memorial Scholarship — An annual scholarship will be given to a Knox County student attending Union College. The selection will be

determined by the student's need, academic ability, and promise of future usefulness. The endowment is provided by two daughters: Carla Sutton Combs and Lynn Sutton Prichard.

Lytle and Dorothy Swope Scholarship — Dr. Samuel G. Swope of Louisville, Kentucky, a trustee of Union College, and F. William Swope of Elizabethtown, Kentucky, have established a scholarship endowment as a memorial to their parents. Funds for the endowment came from their parents' estate. Up to four scholarships are awarded annually with grants of $800 each. Preference is given to students born in Kentucky, Ohio, or Florida.

Hulbert Taft, Jr., Memorial Scholarship — Mrs. Thomas C. Haydock, Sr., of Cincinnati, Ohio, has provided a scholarship endowment as a memorial to her late husband, Hulbert Taft, Jr. The income from the endowment will be used annually to provide one or more honor scholarships to needy students having high academic potential.

The Dot Tatman Endowed Scholarships — Four $250 endowed scholarships have been established by the Reverend Dr. Harold W. Tatman, Jr., in honor of his wife, Dot. The scholarships are to be given to freshmen and continue over the four-year period with preference to Kentucky female students.

The Teagle Foundation Appalachian Scholarships — The Teagle Foundation of New York City has established a number of scholarships for qualified Appalachian students. The foundation was established by Walter Clark Teagle, Rowena Lee Teagle, and Walter C. Teagle, Jr.

Edward Townsend Memorial Scholarship — Dr. Milton H. Townsend has endowed a scholarship with preference being given to a history and political science major. The grant is in memory of Dr. Townsend's late father.

TREMCO Inc., Scholarship — A $1500 scholarship is awarded by TREMCO, INC., a division of the B.F. Goodrich Company, to an incoming freshman chemistry major with preference to a student from southeastern Kentucky.

Allan Tuggle Scholarships — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a number of scholarships in mathematics and physics.

Several of the scholarships are awarded to entering freshmen on the basis of competitive examination. Other scholarships are awarded to current students with majors or minors in mathematics or physics on the basis of academic achievement. Some of the scholarships may be in the form of work grants.

Union National Bank Scholarship — The Union National Bank of Barbourville, Kentucky, has established a half-tuition scholarship at Union College to aid worthy students from Knox County, Kentucky. It is awarded to a student graduating from a high school in Knox County, for the freshman year at Union College.

Vaughn and Melton Company Scholarship — This scholarship is given by Vaughn and Melton, Consulting Engineers of Middlesboro, Kentucky. An annual award of $500 for a student from southeast Kentucky whose high school and college scholastic record reflects the potential for making a major contribution to the quality of life of the region.

Harry C. Viall Memorial Scholarship — Mrs. Harry C. Viall of Barbourville, Kentucky, has endowed a memorial scholarship for a needy, qualified student with preference going to an individual from Knox County. The annual $1,300 scholarship is given in memory of her late husband, Harry, who was a prominent local businessman.

Mr. and Mrs. O. H. Viall Memorial Scholarships — The family of Mr. and Mrs. O. H. Viall of Barbourville, Kentucky, has established a memorial scholarship fund at Union to aid worthy students. The number and size of the scholarships vary according to student financial need.

The Robert E. and Ann Viall Endowed Scholarships — Mr. and Mrs. Robert E. Viall of Barbourville, Kentucky, have established endowed scholarships that provide $6,000 annually for worthy students from either Knox or Bell County.

William M. Wilson Memorial Scholarship — The late Mrs. Eva Oldfield Wilson of Barbourville, Kentucky, established a scholarship fund in memory of her deceased husband. The income from the fund will be used to provide an annual grant of $350 for a promising student preparing to teach in the elementary or secondary schools.

Dr. Henry M. Zimmerman Scholarship — The late Dr. Henry M. Zimmerman of Pompano Beach, Florida, established a scholarship endowment for needy students of exemplary character who show promise of being able to contribute to the well-being of their country and their fellow man.

Endowments

The Russell M. Bennett Memorial Professor of Sociology Chair — Mrs. Helen Hunt Bennett gave $75,000 to Union in 1946 for the endowment of this professorship. An additional $2,000 was given for equipment for the Business Department.

Andrew and Emma Elizabeth Edinger Memorial Fund — This fund was established by the late Mr. Joseph Edinger in memory of his mother and father. The fund has been increased by other members of the family and the income designated for use in the maintenance of campus buildings.

James P. Faulkner Memorial Endowment — James P. Faulkner of Barbourville, Union College president from 1897 to 1905, gave property to the college, the sale of which produced $57,500. The income from this investment is used for salary support for a faculty member in philosophy.

The Raymond W. Gibson, Sr., Chapel Endowment — Mr. Raymond W. "Deacon" Gibson, Senior, of Danville, Kentucky, established a $50,000 endowment at Union College in 1979 for the upkeep and maintenance of the Conway Boatman Chapel. His son, Raymond W. Gibson, Jr., served as Campus Minister at Union College from 1974 to 1979. The late Mr. Gibson, a prominent layman in the Kentucky Conference of The United Methodist Church, was a long-time friend of Union College.

Dr. Frank A. and Mrs. Eleanor Gilbert Biology Faculty Endowment — Dr. and Mrs. Frank A. Gilbert have established a Biology Department Endowment to augment the salaries of the biology faculty. The annual supplement will be in addition to regular salaries. Dr. Gilbert is professor emeritus of biology at Union College.

Anna E. and John William Harris Memorial Fund — The late Dr. J. William Harris established a lectureship fund containing the sum of $30,000 in memory of his sister, Anna E. Harris, and his father, John William Harris.

The Kenneth G. Herrick Faculty Endowment — Kenneth G. Herrick of Tecumseh, Michigan, has established a Faculty Development Endowment at Union College. The yield from this fund will support increased faculty salaries and professional advancement for the faculty. This endowment was established in 1986.

Charles and Leona Jennings Memorial Funds — Dr. Charles M. Jennings of Marietta, Georgia, has established an endowment fund in memory of his parents. Charles and Leona Jennings, the income from which is to be used to provide an annual bonus to the head of the Department of Biology at Union College.

William Jones Endowment Fund — The late Mr. William Jones of Barbourville, Kentucky, established a fund, the income from which is designated for use by the music department to purchase recordings and musical scores.

Jeffrey Kronk Memorial Endowment — This endowment, established by the Senior Class of 1967, in memory of Jeffrey Kronk, a member of that class, will assist in purchasing books for Union College's Lincoln-Civil War Collection.

Francis Landrum Memorial Professor of Religion and Philosophy — The late Mrs. Obed J. Wilson established the Francis Landrum memorial professorship through a bequest of $50,000 in 1927.

Melanie Jean Martin Trust Fund — Dr. and Mrs. O. J. Wilson, of Bowling Green, Kentucky, have established a memorial fund in memory of their granddaughter. The income from this fund is used to purchase library books to support the work of the English department.

Pearl Sinnett Meyer Memorial Fund — The Rev. Dr. Jesse I. Meyer has established an endowment fund in memory of his wife, Mrs. Pearl Sinnett Meyer. The income of this fund is designed for the purchase of books for the Union College library.

Allan Tuggle Endowment Fund — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a fund, which may be augmented from time to time, the income from which is designated for scholarships, awards, and instructional support in mathematics and physics.

Wilson-Gross Lectures — The late Dr. and Mrs. James Wilson of Floydada, Texas, established a lectureship endowment in memory of Dr. and Mrs. John Owen Gross. The purpose of the lectures is to bring annually to the campus distinguished speakers to discuss vital issues confronting the Christian student.

Colutha J. Taylor Wright Memorial Fund — The late Mr. J. S. Wright of Whitley City, Kentucky, established an endowment fund in memory of his wife, Mrs. Colutha J. Taylor Wright. The initial sum was $1,000.

Awards

Note: These awards may be presented at the annual Honors Day Convocation. Some are academic in nature; to be eligible for such awards, students' academic records should not include any grades of "incomplete."

Alpha Psi Omega Award — given by Alpha Psi Omega, National Dramatics Honor Fraternity, to the junior or senior student who has made outstanding contributions to theatre at Union College over a period of years.

Association of the United States Army Award — given by the Union College ROTC Program to the outstanding Military Science I or II student.

Bjornstad Freshman Composition Award — given by Dr. William Bjornstad, a former faculty member of Union College, and Mrs. Bjornstad, to the student achieving the highest writing excellence in freshman composition courses as determined by the English Department.

Govenor James D. Black Senior Award — given by the Late Mr. Pitzer D. Black of Barbourville to the senior student with the highest scholastic average for the year.

Blackwell Political Science Memorial Award — given by the late Dr. Robert Lee Blackwell to the senior majoring in history and/or political science showing the highest academic excellence in the field of political science.

Erwin S. Bradley History Award — given to an upperclass student with a major in history who has the highest scholastic average in overall grades in history earned at Union College.

Kathy Brick Memorial Award — given by her parents, Mr. and Mrs. Theodore F. Brick of Ohio, to the student showing the highest proficiency in competitive swimming.

Calculus Award — given by a friend of the College to the student with the highest cumulative average in all three calculus courses offered at Union.

Campus Activities Board Award — given by the Campus Activities Board to the senior member who has contributed the most to the Board and to student activities at Union College during the academic year.

Campus Ministry Award — given to the senior who, by his or her actions, exemplifies selflessness and concern for the needs and well-being of others as determined by the office of Campus Ministry.

Chemical Rubber Company Freshman Chemistry Award — given by the Chemical Rubber Company Press of Boca Raton, Florida, to an outstanding freshman student in recognition of scholastic achievement in chemistry.

Chemistry Department Awards — given in Analytical and Organic Chemistry by the chemistry faculty of Union College to the students who have completed those chemistry courses with the best overall average.

Dr. Theodore R. Davies Senior Biology Award — given in memory of the late Dr. Theodore R. Davies to the Senior student showing the highest academic excellence in the field of biology.

Eastern Kentucky Essay Award — given by the late Dr. Kenneth H. Tuggle, a trustee of Union College, to the student writing the best essay on eastern Kentucky history.

Engineering Award — given by a friend of the College to the student with the highest cumulative average in pre-engineeing courses taught at Union College.

Evans Phillips Plummer & Company Scholarship Award — given by Evans Phillips Plummer & Company, C.P.A.'s of Barbourville — an annual $500 scholarship to be awarded to the most promising sophomore accounting major. The scholarship is to be used in the fall semester. The recipient also receives a plaque and a cash award.

Gamma Beta Phi Award — given by the Gamma Beta Phi National Honor Society to the full-time student with the highest cumulative average in hours earned at Union College.

Dr. L.A. Geiss Computer Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the student exemplifying excellence in computer information systems.

Dr. L.A. Geiss Junior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the junior majoring in accounting with the highest cumulative standing in that field.

Dr. L.A. Geiss Senior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the graduating senior majoring in business with the highest cumulative standing in that field.

Dr. Albert D. Graham, Jr., Social Studies Award — given by Dr. Albert D. Graham, Jr., to the senior majoring in an area of Social Studies who shows the greatest teaching potential in

Social Studies as selected by the Union College Education Department.

Health and Physical Education Faculty Award — given by the Union College Health and Physical Education Department to the senior Health or Physical Education major with the highest cumulative academic standing.

Iota Sigma Nu Freshman Award — given by the Iota Sigma Nu Honor Society to the freshman with the highest scholastic average for the year.

Iota Sigma Nu Sophomore Award — given by the Iota Sigma Nu Honor Society to the sophomore with the highest scholastic average for the year.

H.B. Jones Business Enterprise Award — given in memory of Mr. H.B. Jones to the student who has shown initiative and enterprise in the field of business.

Steve Jones Memorial Award — given in memory of Steve Jones, a Union College graduate, to the Senior Varsity Letterperson with the highest cumulative academic average.

The Journalism Award — given by the English and Foreign Languages Department of Union College to the English major with journalism emphasis who has done the most to promote high journalism standards at Union College and who shows the greatest promise for success in a professional journalistic career.

The Literature Award — given by the Tuesday Club of Barbourville to the student majoring in English who shows the greatest excellence in the field of literature.

The Marigold Award — given in honor of Mrs. Connie Marigold, whose assistance and enthusiasm have greatly contributed to the development of the microcomputer laboratory. This award is given to the microcomputer laboratory assistant who has best demonstrated excellence through service to students and faculty in the microcomputer laboratory.

Mathematics Award — given by a friend of the College to the graduating senior math major who has the highest cumulative average in math courses at Union College.

Dr. Mahlon A. Miller President Emeritus Award — given by Dr. and Mrs. Mahlon A. Miller to the senior with the highest cumulative average earned at Union College.

Rena Milliken Award — given in honor of Miss Rena Milliken, Professor Emeritus of Business at Union College, by the Union College Business Department to the graduating senior who shows the greatest potential for professional achievement.

Dr. Paul Muncy Memorial Award — given in memory of Dr. Paul Muncy to the senior premedical student with the highest cumulative academic standing.

Music Faculty Award — given by the Union College Department of Music and Fine Arts to a music major for his or her interest, initiative, cooperation, musical ability, academics and service to the department.

National Education Association — Student Program Award — given by the Union College Chapter of the National Education Association — Student Program to the graduating senior showing the greatest excellence in the field of education.

H.H. Owens History Award — given by the late Mrs. H.H. Owens to the student showing the greatest excellence in the field of history.

Laws and Esten Parks Award — given by Dr. S. Laws Parks, former Vice President for Business Affairs at Union College, and Mrs. Parks, to the senior religion major with the highest cumulative academic standing.

Patridge Theta Pi Delta Award — given by the "Union Express" and **Stespean** staffs in honor of Dr. Frances Patridge, Vice President for Student Affairs at Union College, to seniors who represent the qualities of outstanding service exhibited by Dr. Patridge.

Phoenix Award — given by the Drama and Speech department of Union College to the freshman or sophomore student who has contributed the most to theatre at Union College in the academic year.

Physics Award — given by a friend of the College to the student showing the greatest excellence in the general physics course taught at Union College.

Retired Officers Association Award — given by the Union College ROTC Program to the outstanding Military Science III student.

Sampson Political Science Award — given by the late Governor Flem D. Sampson to the junior showing the highest academic excellence in the field of political science.

William Hugh Smith Memorial Award — given in memory of the Reverend William Hugh Smith to a pre-ministerial or Christian-service student (with preference being given to a Chris-

tian-service student) who shows promise of future usefulness.

Hattie Stanberry Ecology Award — given in memory of Hattie Stanberry, an alumna and former faculty member, to the student or organization that has made a contribution to environmental improvement in the academic year. If there is no qualified candidate, the $50 stipend shall go to the College's Soccer Club, or, if there is none, it shall go to the Annual Fund.

Thomas Storrar Memorial Award — given in memory of Thomas Storrar, former director of Union College's food services, by the Circle K Fraternity to the student who exemplifies the honesty, concern, and personal commitment to the Union College community that was displayed by Mr. Storrar.

Student Activities Appropriations Committee Student Organization Achievement Award — given by the Student Activities Appropriations Committee to the campus organization which, in the committee's opinion, has contributed the most toward campus activities during the academic year.

Katherine V. Sutphen Memorial Award — given in memory of Katherine V. Sutphen, a former faculty member of Union College, to the student who has used his or her talents best during the year is serving the Union College Music Department.

Judge W.W. Tinsley Family Memorial Award — given by the late Mrs. Mayo Tinsley Rathfon to the junior or senior preparing for a legal career showing the greatest promise of future success.

TREMCO, Inc. Award — given by Tremco, Inc. of Barbourville to the junior majoring in chemistry showing the highest academic excelllence as determined by the science faculty.

Union College Women's Club Centennial Award — given by the Union College Women's Club to the campus organization that is most active in planning and implementing programs in keeping with its purpose, social or professional.

Beverly P. and Mossie B. Wilson Memorial Award — given by Dr. and Mrs. O.J. Wilson in memory of Dr. Wilson's parents to the English major with the highest cumulative grade point average who has completed three full years of residence at Union College.

Dr. Cecil H. Wilson Junior Award — given by Dr. Cecil H. Wilson, an alumnus and trustee of Union College, to the junior with the highest scholastic average for the year.

John Henry Wilson Sophomore Award — given by Mrs. Guy D. Atkisson of St. Petersburg, Florida, the granddaughter of the late John Henry Wilson of Barbourville, to the sophomore from the Fifth Congressional District of Kentucky who has the highest scholastic average for the year.

Work Study Merit Awards — given by the Union College Financial Aid Office to students who are nominated by their supervisor. They should have worked in the same office at least three consecutive semesters, be making progress toward completing their present award and have a clear account.

THE ACADEMIC PROGRAM

Academic Calendar

Union College operates on a semester system. The Fall semester begins in early September and ends before Christmas. The Spring semester runs from January to early May. The college has a special three-week May interim session as well as two five-week summer terms.

Course Load

The normal undergraduate student load is sixteen semester hours per semester. Students who have an average academic standing may register for a maximum of eighteen semester hours credit per semester. Students who attain a "B" average are permitted to earn up to twenty-one semester hours per semester. Exceptions must be approved by the division chairman of the student's major.

The maximum load in the May interim is three semester hours. The maximum load in each summer term is generally six semester hours. Students whose cumulative grade point average is "B" or better may request permission from the division chairman to take seven hours a term.

Class Attendance

1. Class attendance is required. Each student is responsible for all work from the first day of class and is expected to attend all meetings of the class for which he is registered. This is regarded as a matter of individual student responsibility.
2. All faculty members are expected to keep accurate records of class attendance.
3. Class absences due to circumstances beyond the control of the student will be excused by the teacher involved if the request is made within one week of return to campus. Class work or tests in these classes must be made up.
4. Class work and tests missed due to illness of a student can be made up only when the student presents the teacher with a valid excuse when he returns to class.
5. Class work and tests missed by the student while he is particpating in an activity sponsored by Union College may be made up only when the faculty sponsor of such an activity signs the official absence list of students.

Withdrawal From Courses

A student is not automatically withdrawn when he stops attending a class. Official withdrawals are made only on forms provided by the Registrar's Office. It is the student's responsiblity to complete this form, obtain the signatures needed, and return it to the Registrar's Office. Failure on the part of a student to follow this withdrawal procedure will result in a grade of "F" for the term.

Course Numbering System

Courses numbered 100 or 200 are intended primarily for lower division students and 300- and 400-level courses are generally reserved for upperclassmen. Freshmen or Sophomores desiring to enter 300- or 400-level courses should confer with the division chairman involved for permission to enroll. 500-level courses are restricted to graduate students.

Courses with hyphenated numbers (101-102) are used when the first semester is prerequisite to the second.

Reserved Course Numbers

Some Special numbers are reserved for specific types of courses or studies. They may be used in any department although they are not shown in the following pages under the specific listings.

001-099	Non-credit special interest courses.
181, 281,381, 481,581	"Special Topics" courses — classes developed on a one-time or experimental basis, or a special innovative class.
282,482,582	Special workshops, credit or non-credit.
183,283,483, 583	Television courses through Kentucky Education Television Network.
184,284,384, 484	May interim courses not listed under a regular catalog number.
285,485	Experiential Education — Study abroad, internships, cooperative work, experience and vocational work experience.

287,487 Field Practicum in specialized areas.

495,595 Independent Study — individual research on approved topics not found in traditional courses. May be repeated on different topics.

Special Notations

Each course description indicates the semester the course will be offered — (F) for Fall Semester, (S) for Spring Semester, and (Sum) for Summer Session.

Many regular year courses are offered in summer sessions but are not guaranteed offerings.

Courses indicated as being offered in "Even Years Only" are offered on an alternate year basis in academic years *beginning* with even numbers, as 1978-79 — "Odd Years Only" courses are offered on an alternate year basis in academic years *beginning* with odd numbers, as 1979-80.

Students should consult regularly with their advisors to ensure proper progress toward their degree. During the junior year, a final planned curriculum is prepared which constitutes a contract for the courses remaining to be completed in order to earn the degree. It is the student's responsibility to initiate the process of developing the planned curriculum.

The Grading System and Quality Points

Marks are reported in letters as follows:

A — Represents distinctly superior work, valued at four quality points for each semester hour.

B — Represents above average work, valued at three quality points for each semester hour.

C — Represents average work, valued at two quality points for each semester hour.

Cr — Indicates that a course has been passed satisfactorily.

D — Represents inferior but passing work, valued at one quality point.

F — Indicates failure with 0 credits and 0 quality points for each semester hour or failure to officially withdraw from a course.

W — Indicates that a student withdrew during the first 12 weeks of the semester.

I — Indicates that in the opinion of the instructor the student has not been able to complete the required work of the course on time due to unavoidable circumstances.

NP — Indicates No Grade Posted — For Developmental Studies courses only.

An "I" received at the end of any semester must be removed before the end of the next semester if the student is enrolled for that term. If the student is not enrolled, the "I" must be removed before the end of the 12 month period following the date on which the "I" was received. Any exceptions to the time limit must be made by agreement of the instructor, division chairman, and Registrar. If an "I" is not removed within that time limit, it remains on the permanent record and cannot be made up.

Quality Point Standing

The quality point standing of a student is determined by dividing the total quality points which he has earned by the total number of semester hours for which he has registered minus the number of hours of Credit and Incomplete on his record.

Credit/Fail System

Students may take two courses per academic year (July through June) on a Credit/Fail basis. Only two courses may be taken in a single discipline. A student must apply in the Registrar's office for the Credit/Fail option no later than the Friday following mid-term. When the instructor turns in a letter grade at the end of the semester, a "D" or above will be recorded as "Credit". An "F" will be recorded as such. This option encourages students to take courses they otherwise might not attempt and where they fear the grade might lower their grade point average. The semester hours earned by "Credit" count, but no quality points are earned. Once this option is chosen it may not be changed. This option may not be used for: English 111 & 112; developmental courses; and courses required in a student's major or minor.

Examinations and Reports of Marks

Examinations are held at the close of each semester. Tests are held at such times during each semester as the instructors may determine. Mid-semester and semester grades are

reported by the instructors to the Registrar. Mid-semester grades are mailed to students' advisors as soon as possible, and students are urged to obtain these grades from their advisors. Where permission to mail grades to parents has been given, grades of students receiving a grade of "D" or "F" at mid-semester will be mailed to home addresses ten days after classes resume following the mid-semester break. Copies of final semester grades are given to students and, where permission has been granted, mailed to parents. Only final grades become a part of a student's permanent record.

Grade Appeal

Student are entitled to redress any grievences relative to grades. Please refer to the student handbook or contact the Office of Academic Affairs.

Honor Students

Union College recognizes excellent scholarship in three ways: The Dean's List, the Presidential Laureates, and graduation with honors.

The Dean's List is comprised of those students who have completed at least 12 hours of graded work with a 3.25 grade point average and no grades of "I" for the semester. This list is published after the fall and spring semesters.

Presidential Laureates are those students who meet all requirements for the Dean's List and achieve at least a 3.75 grade point average for two successive semesters with at least 12 hours of graded work and no grades of "I" in each semester. The two summer sessions may be counted as one of these semesters if the minimum hours have been earned. The list of students designated as Presidential Laureates is published after the fall and spring semester.

Appropriate certificates are given in recognition of both of these achievements, and graduation honors are noted on the diplomas of those receiving degrees with distinction (described on page 30 of this catalog).

Probation

Students falling below the following grade point average and corresponding minimum semester hours will be placed on Academic Probation:

Freshmen.....1.80
Sophomores (32 hours).....1.90
Juniors (64 hours).....2.00
Seniors (96 hours).....2.00

Probationary students are closely monitored by the Academic Standing Committee of the College. Students who are on academic probation may be restricted as to course taken, be required to repeat courses in which low grades have been earned, lose Union College financial aid, or be suspended from the College.

Academic Amnesty

Students having received a grade point average (GPA) of less than 2.0 in a semester may apply once only to the Registrar for academic amnesty after having completed two consecutive semesters of 12 hours with a minimum GPA of 2.0. Twelve semester hours earned during the summer terms may be counted as one semester. Course titles and grades remain as previously recorded on the academic record. Credit will be given for courses with grades of "C" or higher. None of the grades in the semester for which academic amnesty is granted will be used in calculating the GPA. Transfer students bringing less than a 2.0 GPA or having received any form of academic amnesty at another institution do not qualify for any amnesty option at Union. Students who receive amnesty will not be eligible for academic honors based on cumulative GPA.

Students who have been out of school for two years or less may be readmitted on a conditional basis and apply for academic amnesty after completing two consecutive semesters of satisfactory (2.0) work. Students who have been out of school more than two years will be treated as transfer students.

College-Level Examination Program (CLEP)

Union College is a regional testing center for the College-Level Examination Program (CLEP). The CLEP tests provide college credit for material students have mastered through self-study or non-accredited classes. There are five general exams and 30 subject area exams. As an Open Testing Center, Union College administers CLEP exams the second week of each month.

By passing the CLEP examinations, degree-seeking students enrolled at Union College can earn up to 30 semester hours of credit toward a four-year program; 15 hours may be earned

toward a two-year program. High school special students, and other special students, are not eligible. Credit may not be earned, through CLEP, for courses required for teacher certification by the Kentucky Department of Education.

Exams in the general battery must be taken before the student achieves sophomore status. Further information is available in the Office of Special Programs.

Credit By Examination

1. The student will apply for credit by examination at the Office of Experiential Education. An initial screening interview will be conducted and the division chairman and appropriate faculty member will be consulted to determine if an evaluation seems feasible.
2. If an evaluation is feasible, the student will take a completed application form to the faculty member and arrange for an evaluation date. The faculty member will prepare an evaluation procedure, carry out the evaluation, and report the results to the Office of Experiential Education.
3. Reported results will include a recommendation as to whether or not credit should be awarded and a description of the evaluation procedure and student performance. This material will be maintained on file in the Office of Experiental Education.
4. The recommendation and evaluation description will be forwarded to the division chairman or a designated representative for review. If the division representative does not concur, the faculty member, designated representative (if there is one), and the division chairman will meet with the Director of the Office of Experiential Educaiton to seek a resolution.
5. Successful completion of a challenge examination will be reported to the Registrar by the Director and will be recorded as "Credit" on the transcript. An unsuccessful challenge will not be recorded.
6. Students enrolled in a course may request a challenge examination only within the period when a new course may be added.
7. Challenge examinations may not be used for developmental courses, to repeat a course, or remove an "F" from the transcipt.

Transfer and Correspondence

Any student planning to graduate from Union College must receive permission from the Registrar to register for correspondence courses. Credits cannot be recorded unless prior arrangements are made.

Students enrolled for a full-time program of study shall defer work on all correspondence courses during the term for which they are registered.

Not more than twelve semester hours of correspondence work done in one academic year will be accepted by the College. Not more than one-fourth of the courses in a major may be completed by correspondence. Not more than thirty-two semester hours of correspondence credit will be accepted toward a degree.

Not more than six semester hours of correspondence may be accepted during the senior year. Students with sixty semester hours or fewer at Union may offer six semester hours non-residence in the last thirty-six; students with sixty-one semester hours or more may offer six semester hours out of the last twenty-four.

Failures or quality point deficiencies in any course done in residence cannot be removed by transfer credit, correspondence or Independent Study.

Graduating seniors must complete any correspondence work needed for graduation at least four weeks before the date of Commencement

Graduation Requirements

Requirements for Graduation — Bachelor Degrees — Arts, Music, and Science.

The candidates must satisfy the following requirements:

1. Minimum of 128 semester hours. Thirty of the last thirty-six must be earned in residence at Union College. Students who have earned as many as sixty-one semester hours at Union College may graduate with only eighteen of the last twenty-four hours earned in residence. At least forty semester hours must be in courses numbered 300 or above.
2. Quality point standing of 2.00 overall and at Union, and in all courses taken in the major or minor fields.

3. Completion of the Liberal Education Core.
4. The equivalent of 12 semester hours of a single foreign language not native to the student is required for the Bachelor of Arts Degree. Equivalency shall be determined by the successful completion of the fourth college course of the language. Students with prior training in that language at the high-school level may be eligible for advanced placement in the sequence of courses and meet the requirement with fewer than twelve credit hours.

   Religion majors may substitute a year of Hebrew and a year of Greek for the language requirement for the Bachelor of Arts degree.
5. For the Bachelor of Science degree the student must meet all graduation requirements, including a major or area. A foreign language may or may not be required as determined by the individual discipline.
6. Completion of either:
   a. A major as determined by the faculty of the individual discipline.

      Majors are offered in Accounting; Biology; Business Administration; Business Education; Chemistry; Christian Education; Church Music; Computer Information Systems; Drama; Drama and Speech; Elementary Education; English; Health Education; History; Mathematics; Mining Management; Music; Music and Business; Music Education; Office Administration; Physical Education; Physics; Psychology; Religion; Secondary Education; Sociology.

      Minors are offered in Accounting; Appalachian Studies; Biology; Business Administration; Chemistry; Coal Mining Technology; Computer Information Systems; Drama; Drama and Speech; Economics; English; Environmental Studies; Health Education; History; Mathematics; Music; Office Administration; Philosophy; Physics; Psychology; Religion; Sociology.

   b. An area, the structure of which is determined by the faculty of the Division in which the area requirements are met.

      Areas are offered in Business; English; Journalism; and Science.
7. At least forty semester hours offered for graduation must be earned in junior and senior courses (300 or above); at least six semester hours 300 and above, earned at Union, must be included in any twenty-four hour major; at least twelve semester hours 300 and above (evenly distributed in the two fields if this is a combined major), earned at Union, must be included in a thirty-hour major; at least eighteen semester hours 300 and above earned at Union must be included in an area.
8. At registration each senior must specify the tentative date on which he expects to graduate.
9. Advice in arranging schedules and choosing courses is always given gladly; however, each student is responsible for completing all requirements.

Associate Degrees — see specific program requirements

Combined Degrees

The bachelor degrees may be granted to students who have completed three years of work at Union College and one year of work in an accredited professional school with the following provisions:

1. The work in the professional school must continue the curriculum in which the student has been enrolled at Union College (pre-law, pre-dentistry, pre-medicine, etc.)
2. The student must have completed satisfactorily the minimum requirements for three years of pre-professional work at Union College (ninety-six semester hours with a quality-point standing of at least 2.00) and also the general college requirements for graduation, including the foreign language requirement if a B.A. is desired.
3. The student must have completed satisfactorily the minimum requirements for one year of study at the accredited professional school in which he is enrolled. The number of credits at the end of the four years of study must total at least 128 semester hours.

Degrees with Distinction

Honors in Scholarship are recorded on the diplomas of the students earning them. There are three grades of honors designated respectively: *cum laude, magna cum laude,* and *summa cum laude.* These honors are conferred

at graduation upon students who satisfy the following conditions of scholarship:

The honor of *cum laude* is awarded to those students who have earned an average standing of 3.5 overall and at Union.

The honor of *magna cum laude* is awarded to the students who have earned an average standing of 3.75 overall and at Union.

The honor of *suma cum laude* is awarded to those students who have earned an average standing of 3.9 overall and at Union.

Students coming from other colleges may receive honors on completing 61 semester hours of resident study and satisfying the conditions of the scholarship prescribed by the faculty, provided they furnish also such evidence of high scholarship in the institution from which they come as may, in the judgment of the faculty, entitle them to become candidates for honors under the regulations.

As a reward for excellence in scholarship and to promote diligence in study and encourage high ideals, the honorary scholastic fraternity of Iota Sigma Nu was founded on May 26, 1936. Membership is open upon election to:

(a) All who have met the requirements for graduation with honors.

(b) All students who have at least 74 hours with a 3.2 quality point standing or 100 hours with a 3.0 quality point standing and who have completed a minimum of two years (64 semester hours) in residence at Union College.

ACADEMIC SERVICES

Career Planning, Academic Advising, and Placement Services

Upon Admission to Union College, students will begin a process whereby career planners and faculty advisors assist them to articulate their career goals, to select academic courses of study appropriate to those goals, and to achieve suitable placement upon completion of their studies. A student should therefore be assured of a smooth transition from high school to the academic environment of Union College with the appropriate services available throughout the student's college days and afterwards.

Undecided Majors

Students who have not made a vocational or professional choice will be assigned an advisor in the Career Counseling Office. Once a choice is made, the student will be reassigned to a faculty advisor in the appropriate discipline.

Planned Curriculum

At the beginning of the junior year, a planned curriculum will be developed by the student's advisor and the Office of the Registrar at the student's request. This is an agreement between the College and the student. Once the curriculum has been completed only changes approved by the Registrar are binding on the College.

Tutoring Center

The Tutoring Center offers tutoring to students in most freshmen and sophomore level courses. Tutoring is done by trained peer tutors, selected through faculty recommendation, superior academic achievement and personal interviews. Students should request help as soon as they experience difficulty in a class. There is no fee for the tutoring service.

For more information on Academic Advisement, special services, and counseling, contact the Director of Special Programs.

Microcomputer Laboratories

The College has two microcomputer laboratories for student and faculty use. One is located in the Mahlon Miller Science Center and contains seven Apple II's. The other is in Centennial Hall Classroom Building and contains nineteen Radio Shack computers and eight IBM compatible computers; this laboratory also contains terminals connected to the College's minicomputer. The laboratories are staffed by student laboratory assistants and are open approximately sixty hours each week, primarily during weekday afternoons and evenings.

Additional microcomputers are available for use in tutoring and remedial instruction.

Developmental Studies

The Developmental Studies Program is designated to help students become more successful in their college studies. Through this program Union College has recognized that each entering student has different strengths and weakensses. **It is the sum total of these strengths and weaknesses that leads to either success or failure in college study.** Some of the common weaknesses are in reading, writing, and math skills, as well as in personal skills such as time management, goal setting, and decision making.

The College has developed mandatory courses for students who score

1. below 80% on the English Placement Test,

2. below 80% on the Math Placement Test,

3. below 11 on the Nelson-Denny Reading Test,

4. below 75 on the Coopersmith Self-Esteem Scale and above 9 on the Norwicki Strickland Locus of Control Scale.

Students with composite scores of below 20 on the ACT or 900 on the verbal and quantitative sections of the SAT are required to take these placement tests before being assigned an advisor and registering for classes.

Students who are not required to take the developmental courses listed below may elect to take one or more of them after consultation with their academic advisor.

The mandatory courses include the following four courses, each carrying 3 semester hours of credit:

1. **English 110** — is designed to provide training in college-level language skills and to prepare students for English 111 and other introductory courses.
2. **Mathematics 100** — is intended for students who need to improve their arithmetic and elementary algebra skills prior to taking other mathematics courses or courses requiring quantitative reasoning. The course includes a brief review of whole number arithmetic (particularly prime factorization, exponents, and perfect squares), and extensive review of fractions, decimals ratio and proportion, percent, and an introduction to algebra (including arithmetic in integers, algebraic expressions, and linear equations.)
3. **General Studies 101** — is designed to help students increase their reading levels to more effectively handle the reading loads required in college. The student's reading level will be evaluated thoroughly to determine the entry level.
4. **General Studies 102** — is designed to increase students' academic and personal confidence through two components. The first will aid students to improve their study and time-management abilities. The second will present decision-making, skills that will enable students to clarify their goals, values and interests, allowing them to make effective decisions thoughout their life.

Community Education

Community Education at Union College provides courses and workshops that satisfy a wide range of educational needs for adults. These courses provide an opportunity to study a variety of subjects for personal enrichment, to acquire skills for career advancement, or to enjoy cultural and leisure activities. Community Education emphasizes learning as a lifelong experience. The close student-to-instructor rapport that characterizes Union College adds an exciting dimension to this learning experience. Community Education attempts to meet the special educational needs of adults through a variety of forums, e.g., short courses (including Elderhostel), seminars, workshops, and conferences. The program also provides opportunities for students to earn continuing education credits and college credit for telecourses available through Kentucky Educational Television.

Adult Education

The adult education program includes the Adult Basic Education unit and the JTPA (Job Training Partnership Act) unit which Union College sponsors in conjunction with the Kentucky Department of Education. These programs enable adults who have not received their high school diplomas to prepare for the GED. In addition, Union College co-sponsors the Adult Literacy program with the Kentucky Literacy Commission.

Library and Learning Resource Center

The Abigail E. Weeks Memorial Library contains a collection of approximately 80,000 books and other materials in a newly expanded facility.

Over 400 periodicals are received regularly, together with various indexes. The Library is also a selective depository for U.S. Government documents. Audio-visual and computer materials are integrated with the book materials, and everything possible is available for self-service use. There are a variety of study spaces providing seating for 250 students, some in rooms designed for group study. The Library staff places first priority on helping students use both the materials and the equipment. There is also a sizable special collection devoted to Abraham Lincoln and the Civil War, a Curriculum Center for students of education, and a collection of music recordings and scores.

The Learning Resource Center supplements the printed materials of the Library with a broad range of non-print media, including slides, audiotapes, videotapes, filmstrips and kits. In addition to providing educational materials for classes and individualized instruction, the Center offers production services such as graphics, and prepares special media presentations. There is computer equipment available for use by students and faculty. The LRC staff also instructs students and faculty in the use of equipment and materials.

TITLES
P-Z
PUBLISHERS

CURRICULUM

MAJORS AND DEGREE PROGRAMS

A college major is actually a means to an end — the means by which a student prepares for a future career, entrance into graduate school, or some change in his life style. Union College offers a wide range of majors and minors, as part of the Bachelor's degree and a number of certificate and 2-year Associate degree programs for those not needing a full 4-year degree.

DEGREE AREA	BA/BM/BS Major	BA/BS Minor	Assoc. Degree	Certificate	Program
Accounting	•	•	•		
Business Administration	•	•	•		
Business and Music	•				
Business Education	•				
Computer Info. Systems	•	•	•	•	
Economics		•			
Medical Secretarial Admin.			•		
Office Administration	•	•	•	•	
Elementary Education	•		•		
Middle School Certif.				•	
Secondary Education	•				
Health Education	•	•			
Physical Education	•				
English	•	•			
Journalism					•
Drama	•	•			
Drama and Speech	•	•			
Church Music	•				
Music	•	•			
Music and Business	•				
Music Education	•				
Christian Education	•				
Philosophy		•			
Religion	•	•			
Appalachian Semester				•	
Appalachian Studies		•			
History	•	•			
Pre-Law					•
Psychology	•	•			
Biology	•	•			
Chemistry	•	•			
Coal Mining Technology		•	•		
Environmental Studies		•			
Mathematics	•	•			
Medical Technology					•
Mining Management	•				
Physics	•	•			
Pre-Dentistry					•
Pre-Engineering					•
Pre-Medicine					•
Pre-Optometry					•
Pre-Pharmacy					•
Pre-Physical Therapy					•
Pre-Veterinary Medicine					•
Science Education			•		

GRADUATE, COOPERATIVE, AND INTERDISCIPLINARY PROGRAMS

Graduate Program in Education

Union College offers a unique graduate program designed for in-service teachers in the public schools. The College grants the 5th year certificate for Kentucky teachers, the M.A. degree in Education with emphasis as a reading specialist in elementary education, general secondary education, health, kindergarten education, English, social science, and natural science. Work beyond the Masters level leading to certification as an elementary or secondary school principal is available. Many courses are offered off-campus.

Qualified holders of the Bachelor's degree should contact the Dean of Graduate Academic Affairs for brochures, catalogs, and information about the graduate program.

Cooperative Programs

Bellarmine College (Nursing)

A cooperative arrangement between Union College and Bellarmine College provides registered nurses from the eastern Kentucky area an opportunity to pursue a bachelor's degree in nursing at Union College. Selected liberal arts and elective courses are taught by Union College faculty; professional nursing courses are taught by Bellarmine College faculty on the Union College campus. (or nearby facilities) Clinical experiences are offered in the area.

The B.S.N. Degree is conferred by Bellarmine College. This program offers the registered nurse an opportunity to receive a B.S.N. without leaving eastern Kentucky. Estimated completion time for the program is four years on a part-time basis.

Interested persons should file Union College and Bellarmine applications. An official transcript and a copy of the RN license should accompany the application to Bellarmine. Students must meet the general standards of both Colleges.

For more information, contact the Admissions Office at Bellarmine College at 1-800-633-5114.

Sue Bennett College

Union College also has a cooperative agreement with Sue Bennett College, a private two year United Methodist College located in London, Kentucky (25 miles from Union's campus). Under the agreement, Union offers junior, senior, and graduate level courses in education and business on the Sue Bennett Campus. This agreement also facilitates the articulation of transfer credit and provides scholarships for qualified Sue Bennett students who transfer to Union.

Oak Ridge Seminars

Since 1968, a series of special honors seminars has been conducted at the Oak Ridge (Tenn.) Institute of Nuclear Studies for selected majors in biology, chemistry, physics, and social sciences. These students under the direction of the Oak Ridge Institute's professional staff, conduct experiments with specialized equipment in the realm of nuclear studies. Arrangements are planned that will provide summer employment at the Institute as research assistants for qualified students of the member colleges.

Appalachian Studies

Reflecting the College's primary mission of improving the quality of life of the Appalachian people, Union offers a multi-faceted Appalachian Studies Program. One or more components of the program should be of interest to all students. The program seeks to develop an appreciation of the people, culture, and socio-economic conditions of the mountain area; to provide opportunities for direct service, research and personal experience in the region; to provide the skills and critical understanding needed to work in this area; and to help the student develop an understanding of himself and others.

The program at present consists of the Appalachian Semester and Environmental Studies, each outlined in detail below, and of various academic courses, identified in appropriate departmental and division course listings. The student will find an interdisciplinary approach to the history, politics', music, natural resources, economics, and other aspects of the region, which will stand him in good stead no matter where he or she may live later.

Appalachian Semester

The Appalachian Semester, which is operated during the fall semester, is a unique interdisciplinary academic program in which mature second semester sophomore, junior, and senior students from Union College and other institutions throughout the United States devote their full time to studying the Appalachian region — its strengths, problems and challenges. Students earn a total of fifteen semester hours of academic credit. Nine hours of credit are offered in sociology at the upper division level, and six hours are offered at either the lower or upper division level for field work in a variety of disciplines. Field work may be either experiential learning of a regional nature in a local service agency or other institutional setting, or it may be directed study in the region at large. The program is designed to combine interdisciplinary classroom experiences and on-the-scene community experiences into a "living-learning" situation where total involvement of students and faculty may take place.

Opportunities are provided to discuss with local and regional leaders assets and problems of the region, and field trips are coordinated with seminar discussions in order to involve participants on the spot with current regional issues. Following an orientation of approximately four weeks, students leave the campus and learn through independent study or work in a variety of private and public service settings.

Course descriptions are included in the curriculum section of this catalog. Detailed information and application forms are available from the Coordinator, Appalacian Semester, Union College.

THE LIBERAL EDUCATION CORE

I. BASIC COMPETENCIES — 12-13 hrs.

A. FRESHMAN COMPOSITION — 6 hrs.
- ENGL 111 Freshman Composition I 3
- ENGL 112 Freshman Composition and Literature 3

B. MATHEMATICS — 3-4 hrs.
- MATH 108 Intermediate Algebra 3
- MATH 111 College Algebra & Trigonometry 4
- MATH 203 Structure of the Number System 3
- BHSC 245 Basic Statistics: Theory and Application 3

C. PHYSICAL WELL BEING — 3 hrs.
- HLTH 131 First Aid & Safety Education 3
- HLTH 270 Personal & Community Health 3

or

- Three Phed. Activity Courses 3

II. HUMANITIES — 12-13 hrs.

A. LITERATURE — 3 hrs.
- ENGL 212 Western Literature 3

B. FINE ARTS APPRECIATION — 3-4 hrs.
- ART 132 Introduction to Art 3
- DRAM 131 Introduction to the Theatre 3
- MUSIC 121 Introduction to Music 3
- MUSIC 161 Foundations of Music 4

C. LITERATURE/FINE ARTS ELECTIVES — 3 hrs.

An additional course from B above or one of:
- ENGL 221-222 Survey of English Literature 3
- ENGL 241-242 Major American Writers 3

D. RELIGION AND PHILOSOPHY — 3 hrs
- RLGN 111 Old Testament History, Literature & Interpretation 3
- RLGN 112 New Testament History, Literature & Interpretation 3
- RLGN 231 The Life & Teachings of Jesus 3
- PHIL 151 Introduction to Philosophy 3

III. HIST. SOCIAL & BEHAVIORAL SCIENCES — 9 hrs.

A. WORLD HISTORY — 3 hrs.
- HIST 111 World History to 1500 3

B. HISTORY ELECTIVE — 3 hrs.
- HIST 112 World History since 1500 3
- HIST 201 U.S. History to 1865 3
- HIST 202 U.S. History since 1865 3

C. SOCIAL SCIENCE — STRUCTURE ELECTIVE — 3 hrs.
- ECON 153 Principles of Economics I 3
- GEOG 101 Introduction to Geography 3
- PLSC 101 American National Government 3
- PSYH 111 Introduction to Psychology 3
- SOCI 131 Introduction to Sociology 3
- ANTH 221 Introduction to Cultural Anthropology 3

IV. NATURAL SCIENCES — 7-8 hrs.

Choose two courses from areas A, B, or C; each of the courses must be in a separate area among the A, B, & C options.

A. BIOLOGICAL SCIENCE 3-4 hrs.
BIOL 111 General Biology....4
BIOL 233 General Botany....4
BIOL 109 Elements of Biology....3

B. PHYSICAL SCIENCE 3 hrs.
PHYS 101 Survey of Physics....3
PHYS 111 Elements of General Physics....3
CHEM 111 General Chemistry....3

C. ENVIRONMENTAL/EARTH SCIENCE 3-4 hrs.
ENVS 101 Man & His Environment....3
ENVS 110 Physical Systems of the Environment....4
GNSC 114 Introduction to Astronomy....4

D. LABORATORY EXPERIENCE 1 hr.
(If not already included in A, B, or C above)
BIOL 110 Elements of Biology Laboratory....1
(BIOL 109)
PHYS 103 Survey of Physics Laboratory....1
(PHYS 101)
PHYS 113 Elements of General Physics Laboratory....1
(PHYS 111)
CHEM 131 General Chemistry Laboratory....1
(CHEM 111)

V. COMPLETION OF CORE **6-7 hrs.**
Select a course from two of the following 3 areas.

A. COMMUNICATIONS/LANGUAGES 3 hrs.
FREN 111 or 112 Elementary French....3
GRMN 111 or 112 Elementary German....3
SPAN 111 or 112 Elementary Spanish....3
SPCH 131 Fundamentals of Speech....3
SPCH 231 Oral Interpretation of Literature....3

B. SOCIAL SCIENCE — PROBLEMS ELECTIVES 3 hrs.
ECON 154 Principles of Economics II....3
GEOG 241 Geography of Appalachia....3
PLSC 231 International Politics....3
SOCI Sociology of Appalachia....3
SOCI 251 Current Socio-Economic Problems....3
SOCI 271 Marriage & the Family....3

C. NATURAL SCIENCE 3-4 hrs.
Select a course from section IV not used to satisfy the Natural Science requirement.

Students are expected to complete this core during their Freshman-Sophomore years. Some majors such as education require specific courses. Consult your advisor.

ACADEMIC DIVISIONS

DIVISION OF APPLIED SCIENCE

William Bernhardt, *Chairman*
Department of Business Department of Education
Department of Health & Physical Education
Military Science (ROTC Program)

I. DEPARTMENT OF BUSINESS

Allen Engle, *Department Head*
Accounting — Business Administration — Business Education
Computer Information Systems — Economics — Office Administration

BACHELOR OF SCIENCE DEGREES IN BUSINESS

In addition to the general college requirements, all candidates for the Bachelor's degree must complete the following courses in one of the major fields listed below. Students with a major or minor in Business must have a 2.0 average for all courses in each major or minor. (Students who choose to complete the foreign language requirement may elect to receive a Bachelor of Arts degree.)

Common Courses Required of All Candidates		*Semester Hours*
ACTG 271, 272	Principles of Accounting	6
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
BUAD 311 or 312	Business Law	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153, 154	Principles of Economics	6
		27

and, as applicable:

Accounting Major		*Semester Hours*
ACTG 371, 372	Intermediate Accounting	6
ACTG 331	Cost Accounting	3
ACTG 376	Tax Accounting	3
ACTG 471	Advanced Accounting	3
ACTG 430	Accounting Theory	3
ACTG 433	Auditing (in addition to core requirement)	3
BUAD 311 or 312	Business Law	3
OFAD 302	Business Communications	3
COMP 221	Business Application Programming I	3
or		
COMP 235	RPG Programming	3
		33

Business Administration Major		*Semester Hours*
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 372	Personnel Management	3
BUAD 451	Business Policy	3
OFAD 302	Business Communications	3
COMP 221	Business Application Programming I	3
or		
COMP 231	BASIC Programming	3
or		
COMP 235	RPG Programming	3
	Electives from the Department of Business	12
		27

Computer Information Systems Major		*Semester Hours*
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
COMP 332	Structured Systems Design	3
COMP 425	Applied Software Development Project	3
COMP 441	Data Bases	3
COMP 231 or 235 or 250	Second Computer Language	3
	Computer Elective (200 level)	3
	Computer Elective (300 or 400 level)	3
BHSC 245	Basic Statistics: Theory and Application	3
MATH 108, 111 or 241	Mathematics Course	3 or 4
And one of:		
OFAD 301 or	Business English: Theory and Application	
PHYS 101, 103 or	Survey of Physics (with lab)	
PHYS 111, 113	Fundamentals of Physics (with lab)	3 or 4
		33-35

Office Administration Major		*Semester Hours*
BUED 290	General Office Accounting Procedures	3
BUED 431	Office Practice	4
OFAD 112	Intermediate Typewriting	3
OFAD 211	Advanced Typewriting	3
OFAD 122	Intermediate Shorthand	3
OFAD 301	Business English: Theory and Applications	3
OFAD 302	Business Communications	3
OFAD 361	Office Management	3
	Elective from the Department of Business	3
		28

Business and Music Major		*Semester Hours*
BUAD 272	Salesmanship	3
OFAD 302	Business Communications	3
	Upper division business elective	3
	Field Placement	3-10
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 111-412	Applied Music	8
MUSC 322	Music History	3
MUSC 171, 172, 173, 175	String, Woodwind, Piano, or Brass Class (Choice of any 3)	3
		40-47

BACHELOR OF SCIENCE DEGREE IN BUSINESS EDUCATION

Students should see the Education Department section for Certification Requirements.

Teaching Major in Basic Business		*Semester Hours*
ACTG 271, 272	Principles of Accounting	6
OFAD 302	Business Communications	3
BUAD 311 or 312	Business Law	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics	3
BUED 431	Office Practice or Office Internship	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
BUAD 352	Principles of Management	3
BUED 362	Methods of Teaching Basic Business Subjects	3
		33

Teaching Major in Secretarial Skills

		Semester Hours
ACTG 271 or 272	Principles of Accounting	3
OFAD 302	Business Communications	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics	3
BUED 431	Office Practice or Office-Internship	3
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 111, 112	Elementary and Intermediate Typewriting	6
	Business Elective	3
BUED 361	Methods of Teaching Secretarial Business Subjects	3
		33

For endorsements in other business subjects, see the head of the business or education department.

ASSOCIATE OF APPLIED SCIENCE DEGREES IN BUSINESS

The following two-year programs lead to the award of the A.A.S. degrees in the emphasis indicated. Union College provides a "career ladder" approach to learning in that students who complete these degrees may immediately apply the earned on the two-year degree toward a Bachelor's degree, or return to college later with guarantee that the credits previously earned at Union will apply toward the 4-year degree.

Common Courses Required of All Candidates

		Semester Hours
ENGL 111	Freshman Composition	3
ENGL 112	Freshman Composition	3
BUED 105	Mathematics Applied to Business	1
ECON 153	Principles of Economics I	3
COMP 131	Introduction to Computer Information Systems	3
OFAD 302	Business Communications	3
ACTG 271	Principles of Accounting I	3
	Humanities General Requirement	9
	Social Science General Requirement	3
		31

and, as applicable

Accounting Emphasis (AAS)

		Semester Hours
ACTG 272	Principles of Accounting II	3
BUED 311 or 312	Business Law I or II	3
ECON 154	Principles of Economics II	3
BHSC 245	Statistics: Theory and Application	3
	Accounting Electives	9
	Natural Science General Requirement	4
	Free Electives	6
		31

Business Administration Emphasis (AAS)

		Semester Hours
ACTG 272	Principles of Accounting II	3
BUAD 311 or 312	Business Law I or II	3
ECON 154	Principles of Economics II	3
OFAD 111	Typewriting I (or equivalent)	3
	Natural Science General Requirement	4
	Business Electives	9
	Free (non-Business) Electives	6
		31

Computer Information Systems Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
COMP 231 or 235 or 250	Second Language	3
ECON 154	Principles of Economics II	3
OFAD	Keyboarding	1
BHSC 245	Basic Statistics: Theory and Application	3
MATH 108, 11 or 241	Mathematics Course	3 or 4
	Computer Elective (200 level)	3
	Computer Elective (300 or 400 level)	3
	Free Electives	5 or 6
		33-35

Medical Secretarial Administration Emphasis (AAS)		*Semester Hours*
BIOI 151	Medical Terminology	2
BIOL 340	Anatomy & Physiology	4
BUED 331	Office Practice	4
HLTH 131	First Aid & Safety	3
HLTH 270	Personal & Community Health	3
OFAD 111, 112	Beginning & Intermediate Typewriting	6
OFAD 121, 122	Elementary & Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
		31

Office Administration Emphasis (AAS)		*Semester Hours*
BUED 290	General Office Accounting Procedures	3
BUED 331	Office Practice	4
OFAD 111, 112	Beginning & Intermediate Typewriting	6
OFAD 121, 122	Elementary & Intermediate Shorthand	6
OFAD 301	Business English	3
	Natural Science General Requirement	4
	Free Electives	5
		31

Diploma in Office Administration (One-Year Program)		*Semester Hours*
ENGL 11	Freshman Composition	3
OFAD 111, 112	Typewriting	6
OFAD 121, 122	Elementary & Intermediate Shorthand	6
BUAD 151	Introduction to Business	3
OFAD 301	Business English	
or OFAD 302	Business Communications	3
BUED 331	Office Practice	4
ACTG 271	Principles of Accounting I	3
	Elective	4
		32

MINORS AVAILABLE TO ALL STUDENTS

Accounting — Twenty-one semester hours in Accounting.

Business Administration — Accounting 271-272, Business Administration 311 and 352. Computer Information Systems 131, Economics 153, and three hours of Business electives.

Computer Information Systems — Twenty-one semester hours consisting of the following: Accounting 271, Computer Information Systems 221, 222, 331, two additional Computer Information systems courses (one numbered 200 or above and one numbered 300 or above), and one additional course additional course from Accounting 272, Business Administration 311, 312, 352, Economics 153, 154 or Office Administration 301.

Economics — Twenty-one semester hours consisting of the following: Economics 153, 154, 363; Behavioral Sciences 245; Business Education 353; Business Administration 351; and History 241 or Economics 251.

Office Administration — Twenty-one semester hours including Office Administration 112, 122, 221, 301, Business Education 331, and six hours of Office Administration electives.

ACCOUNTING

Accounting 271, Principles of Accounting I. (F)(3)
Discussion of the concept of double-entry accounting. Introduction to the basic procedures in the accounting cycle, receivables, payables, inventories and other systems. *Prerequisite:* Business Education 152.

Accounting 272. Principles of Accounting II. (S)(3)
A continuation of Accounting 271, this course covers accounting procedures relative to partnerships, corporations, budgets, costing and financial report generation. *Prerequisite:* Accounting 271.

Accounting 331. Cost Accounting. (F)(3)
Special topics in job order and process cost for materials, labor, and overhead with variable and fixed portions. Budgeting and variances from budget are also covered. *Prerequisite:* Accounting 272.

Accounting 371. Intermediate Accounting I. (F)(3)
Accounting topics including the income statement, balance sheet and change in owners' equity statements. Cash, receivables, inventories, plant, investments and intangible assets are also covered. *Prerequisite:* Accounting 272.

Accounting 372. Intermediate Accounting II. (S)(3)
Continuation of Accounting 371 covering current liabilities, contingent liabilities, long-term liabilities, accounting for income taxes, and owners' equity. Statement of Change in Financial Position, financial statement analysis and the impact of changing prices are also covered. *Prerequisite:* Accounting 371.

Accounting 376. Tax Accounting. (S)(3)
Problems of federal taxes for individuals, partnerships, and corporations are reviewed in depth. *Prerequisite:* Accounting 272.

Accounting 430. Accounting Theory. (F)(3)
Covers current accounting literature, including publications of the American Institute of Certified Public Accountants (AICPA), the Financial Accounting Standards Board, and the Securities and Exchange Commission (SEC). *Prerequisite:* Accounting 372.

Accounting 433. Auditing. (S)(3)
Topics covered include discussion of the ethics and liability of the auditor, verification, analysis, interpretation of accounting records, issuance of audit reports and other reports by CPA's. *Prerequisite:* Accounting 372.

Accounting 471. Advanced Accounting. (F)(3)
Advanced in-depth discussion of accounting for joint ventures, consolidated statements, inter-company transactions, partnerships, and not-for-profit accounting. *Prerequisite:* Accounting 372.

BUSINESS ADMINISTRATION

Business Administration 151. Introduction to Business. (F)(3)
Forms of business ownership, marketing, personnel management, finance, and government regulations are discussed in an overview of organizations.

Business Administration 272. Salesmanship. (S)(3)
The interpretation of sales techniques and methods, prospecting customers, interviews, sales presentations, demonstrations, and closing the sale are presented.

Business Administration 311-312. Business Law. (F,S)(3)
An overview of laws dealing with contracts, agency, employment, bailment, transportation, real and personal property, leases, and bankruptcy.

Business Administration 321. Principles of Marketing. (F)(3)
Study of the movement of goods from producer to consumer and an examination of the functions of the marketing process, marketing institutions, channels of distribution, legal aspects, and policy considerations.

Business Administration 351. Principles of Finance. **(F)(3)**
The principal objective of this course is to introduce managerial finance as a functional area of business, including financial analysis, working capital practices, capital budgeting, corporate valuation, cost of capital and capital structure. *Prerequisite:* Accounting 271.

Business Administration 352. Principles of Management. **(F)(3)**
The development of organization plans and policies, development of industrial relations, management operations with an emphasis on skills and techniques of leadership.

Business Administration 371. Insurance. **(S)(3)**
Insurance contracts and fields of insurance, including fire, marine, casualty, social, disability, life, and property. (Odd years only.)

Business Administration 372. Personnel Management. **(S)(3)**
Using a system-process model, this course discusses the various subsystems (recruitment, selection, compensation, task specification, etc.) which fall under the responsibility of the personnel management function. The subsystems are designed to provide for the efficient and effective utilization of human resources in business concerns. *Prerequisite:* Business Administration 352.

Business Administration 404. Investments. **(S)(3)**
Intermediate discussion of stocks, bonds, and other investments. Analysis of the theories of investing, return and risk valuation of stock. Course will culminate in the management of a portfolio for differing investment alternatives. (Even years only. *Prerequisite:* Business Administration 351.

Business Administration 451. Business Policy. **(S)(3)**
This course serves as a "capstone course" which attempts to bring together knowledge acquired in all of the functional areas of business (management, marketing, finance, accounting, etc.) in a case analysis situation. A strategic decision-making model will be presented as the basis for the alternative courses of action, and the implementation of the strategy chosen. *Prerequisites:* Senior status in the Business Administration program and the successful completion of Accounting 272, Business Administration 321, 351, 352, and 372.

BUSINESS EDUCATION

Business Education 105. Mathematics Applied to Business. **(F,S)(1)**
The application of basic mathematics to business operations including: Markups, markdowns, interest and discounts, bank reconcilliation, and graphing.

Business Education 281. Special Topics. **(on demand)(1)**

Business Education 290. General Office Accounting Procedures. **(S)(3)**
The primary objective of this course is to introduce the student to the current accounting practices and procedures required in an office, including all aspects of payroll accounting.

Business Education 331. Office Practice. **(S)(3)**
Emphasis is placed on the development of office proficiency, records management, internal and external office communications, information processing and administrative support services. Laboratory required. *Prerequisite:* Office Administration 112 and 122 with a grade of at least "C" or the equivalent.

Business Education 353. Consumer Economics. **(S)(3)**
The principal objective of this course is to help the student become a well-informed consumer. The course is organized around three areas of consumer impact — consumers themselves, their effectiveness in the marketplace, and their preparation for the future.

Business Education 361. Methods of Teaching Secretarial Business Subjects. **(F)(3)**
A study of basic dimensions of methods, materials, and objectives in teaching secretarial subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson plans, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tapes. (Even years only.) *Prerequisite:* Admission to Teacher Education Program, Accounting 271 or 272, Business Education 331, Office Administration 112, 122 and 302.

Business Education 362. Methods of Teaching Basic Business Subjects. **(S)(3)**
A study of the methods, materials, and objectives in teaching basic business subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson objectives, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tape. (Even years only.) *Prerequisites:* Admission to Teacher Education Program, Accounting 271 and 272, Business Administration 151, 311 or 312, 352, Business Education 353 and Office Administration 111 or 112.

COMPUTER INFORMATION SYSTEMS

Computer Information Systems 105. Introduction to Microcomputer Packages. (F,S)(2)
A study and evaluation of the major packages available for microcomputers, including word processing, spreadsheet, and data base packages.

Computer Information Systems 131. Introduction to Computer Information Systems. (F,S)(3)
Survey of the fundamental computer concepts, hardware, and operations. In the second half of the term, students will be introduced to the fundamentals of programming concepts and documentation standards, using the BASIC programming language of a model.

Computer Information Systems 221. Business Application Programming I. (F)(3)
A study of the fundamental principles of algorithm development and structured computer programming used in solving business information systems, problems, including an introduction to design and implementation documentation used by industry. Major topics include control structures, debugging, elmentary data structures, and sequential files. A subset of COBOL is used as the programming language. *Prerequisite:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 222. Business Application Programming II. (S)(3)
A continuation of Business Application Programming I. A study of systems of programs and the techniques for their design and development. Major topics include dynamic data structures, random files, simple data structure moduling and implementation, and uses of bulk storage devices. Programming projects will be accomplished by using a full COBOL instruction set for mainframe application and by using BASIC for microcomputer applications. *Prerequisite:* Computer Information Systems 221.

Computer Information Systems 231. BASIC Programming. (F,S)(3)
A study of the BASIC programming language including problem definition, flowcharting solution of problems that are adaptable to business and/or science, and hands-on experience on the microcomputer. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 235. RPG Programming. (S)(3)
A study of the RPG II programming language include problem definition, flowcharting, solution of problems that are adaptable to business applications. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 250. Scientific Programming in FORTRAN. (F)(3)
A study of the fundamental principals of algorithm development and structured programming used to solve problems from the areas of mathematics, the physical sciences, and engineering, including an introduction to design and implementation documentation. Major topics are debugging, control structures, and elementary data structures. Fortran is used as the programming language. *Prerequisite:* Computer Information Systems 131 and one of the following CIS 221 or Math 241.

Computer Information Systems 310. Introduction to Computer Architecture. (S)(3)
A study of the fundamental concepts and terminology of computer architecture, including assembly languages, with emphasis on the relationships among hardware, architecture, systems software, and applications software. (Even years only) *Prerequisite:* Computer Information Systems 221 or Computer Information Systems 250.

Computer Information Systems 315. Operating Systems. (S)(3)
Survey of the major components of operating systems, comparing and contrasting various sytems including simple batch, time sharing, and microcomputer systems. (Odd years only) *Prerequisite:* Computer Information Systems 221 or Computer Information Systems 250.

Computer Information Systems 331. Structured Systems Analysis. (F)(3)
A study of the system development life cycle emphasizing documentation and communication aids, interpersonal approaches and techniques used in analysis, and logical system specification. *Prerequisite:* Computer Information Systems 221 and Accounting 271.

Computer Information Systems 332. Structured Systems Design. (S)(3)
(A continuation of Structured Systems Analysis.) A study of the structured design techniques used in designing a new logical and physical system for a given business related problem including documentation and communication aids. Alternative physical systems are designed and a multidimensional cost/benefit evaluation is performed. *Prerequisite:* Computer Information Systems 222 and Computer Information Systems 331.

Computer Information Systems 421. Software Engineering. **(on demand)(3)**
A study of the management and technical tools, procedures, and concepts used in creating software systems for specific application. Student will design and implement a software system. *Prerequisite:* Computer Information Systems 222, Computer Information Systems 331.

Computer Information Systems 425. Applied Software Development Project. **(S)(3)**
A study of application system development and project management. Students will design and implement a comprehensive system to solve a complex case study. *Prerequisite:* Computer Information Systems 441.

Computer Information Systems 441. Data Bases. **(S)(3)**
A study of software design in a data base environment, of data base systems, and of data base programming. A variety of hierarchical network, and relational data bases are studied. *Prerequisite:* Computer Information Systems 331.

ECONOMICS

Economics 153. Principles of Economics I. **(F)(3)**
The primary objective of this course is to introduce the student to macroeconomic theory including a study of the economizing problem, pure and mixed capitalism, demand and supply, the economic functions of government, national income accounting, the business cycle, employment theory, money and banking, and fiscal policy.

Economics 154. Principles of Economics II. **(S)(3)**
The primary objective of this course is to introduce the student to microeconomic theory, including demand and supply analysis, elasticity, the production function, price and output determination, costs of production, pricing and employment of resources, and market structures.

Economics 251. Environmental Economics. **(S)(3)**
Societal choice in the use of scarce resources is related to ecosystem survival environmental quality, and human welfare.

Economics 363. Money and Banking. **(F)(3)**
The primary objective of this course is to introduce the student to the historical development of the commercial banking system, including an in-depth study of the Federal Reserve System. *Prerequisite:* Economics 153.

Additional Courses listed under: Behavioral Sciences 245, Business Administration 351, Business Education 353, and History 241.

OFFICE ADMINISTRATION

Office Administration 105. Keyboarding **(F,S)(1)**
Designed to acquaint students with keyboading skills necessary to operate a computer efficiently.

Office Administration III. Elementary Typewriting. **(F)(3)**
A first course in typewriting for the secretarial student. Also for those needing one course in typing for personal use. Keyboard and fundamental processes are presented. Students presenting one or more units of high school typewriting may not take this course.

Office Administration 112. Intermediate Typewriting. **(F,S)(3)**
Emphasis is placed upon techniques, speed, and accuracy. Electronic typewriters and problem typing are introduced. *Prerequisite:* Office Administration 111, one unit of high school typing or the equivalent.

Office Administration 121. Elementary Shorthand. **(F)(3)**
Principles of Gregg Shorthand, Series 90. Places emphasis on theory and developing reading and writing skills. Letter transcription introduced. Students presenting one or more units of high school shorthand may not take this class. Laboratory required.

Office Administration 122. Intermediate Shorthand. **(S)(3)**
Greater emphasis placed on writing and transcribing with speed and accuracy. Gregg theory and basic typewriting concepts reviewed. *Prerequisites:* Office Administration 111 and 121 with a grade of at least a "C" or the equivalent.

Office Administration 211. Advanced Typewriting. **(S)(3)**
This is the final course in typing. Simulations in the sales office, general office, accounting office, executive office, legal office, medical office, technical office, and government office are completed on electronic typewriters. Speed and accuracy are emphasized. *Prerequisite:* Office Administration 112 with a grade of at least "C" or the equivalent.

Office Administration 221. Dictation and Transcription. **(on demand)(3)**
Emphasis placed on speed in taking dictation and in transcription skills. *Prerequisites:* Office Administration 112 and 122 with a grade of at least "C" or the equivalent.

Office Administration 301. Business English: Theory and Applications. **(F)(3)**
Comprehensive review of grammar and usage. Emphasizes and reinforces business applications and vocabulary in areas such as business law, word processing, merchandising management, and computer information systems. *Prerequisite:* English 111 with a grade of at least "C".

Office Administration 302. Business Communication. **(S)(3)**
Realistic methods of mastering writing skills needed in business siutations. Emphasizes instruction in both the basic and advanced techniques of preparing and organizing business letters, memoranda, and reports. Also enhances speaking reading and listening skills. *Prerequisite:* English 111 or Office Administration 301.

Office Administration 361. Office Management. **(F)(3)**
The principal objective of this course is to introduce the student to the theories and practices required for effective office administration, including communication skills, staffing and supervisory procedures, space management, and word processing.

II. DEPARTMENT OF EDUCATION

Jean L. Letch *Department Head*
Elementary Education — Secondary Education

The undergraduate programs in the Department of Education have as their primary objective the preparation of superior teachers for public and private schools, both elementary and secondary.

At Union College the education of prospective teachers is the responsibility of the College as a whole, not the Department of Education alone.

The teacher education programs described in the following pages prepare the student to receive a baccalaureate degree and, upon recommendation of the College, A Kentucky teachers certificate. A student who wishes to teach in a state other than Kentucky should determine certification requirements in that state (usually quite similar to Kentucky's), and plan his program accordingly. Information on certification requirements in other states is available in the registrar's office and in the Career Planning and Placement office.

Students preparing for teacher certification must be admitted to the Teacher Education Program of the College before they will be allowed to register for any of the professional education courses beyond Education 241 or Education 242. These students may not take professional preparation education courses on a Credit/Fail or Independent Study basis.

Graduates may continue their professional preparation by entering the Graduate Studies Program. A separate catalog is available from the Dean of Graduate Academic Affairs.

Purpose of the Teacher Education Program

The Teacher Education Program at Union College seeks to aid each student in the realization of the following objectives:

1. A knowledge of the social, physical, and psychological factors which determine behavior and which promote intellectual growth, emotional balance, and wholesome personality.
2. The development of health habits, physical skills, and recreational interests essential to personal well-being and to highest teaching effectiveness.
3. An understanding of the principles and purposes of education in a democratic society.
4. The cultivation of attitudes and abilities essential to successful relationship with youth and professional associates.
5. An understanding of the principles and techniques of effective teaching, and the development of appropriate teaching skills.
6. An appreciation of the worth of teaching as a career and as an opportunity for service to youth and to society.

Requirements for Admission to Teacher Education Program

I. Students who wish to enter teacher education must prepare a folder for presentation to the Teacher Education Committee for approval. The folder must be complete before the student is admitted to the program and must contain the following:

1. Application to the program and an acceptably written essay (2-3 pages) on "Why I want to be a teacher".
2. Four unqualified recommendations from instructors.
3. Documentation to show that all competency tests have been passed. (Students will be permitted to take the first competency test upon enrollment in Introduction to Education and Early Involvement. Students who presents evidence of successful completion of competency tests taken at other institutions and have transferred to Union will have these tests accepted by Union College.)
4. Documentation to show that the student has passed a Teacher Education Interview. (Students who enter under the old program [see III, 1 below] must still pass a Teacher Education interview.)
5. Documentation to show that the student has a cumulative grade point average of at least 2.25.
6. Documentation to show that the student has completed a minimum of 30 hours.
7. Documentation to show that the student has completed English 111 and 112 with a grade of "C" or better in both courses.
8. Documentation to show that the student has either completed or is enrolled in and taking Introduction to Education and/or Early Involvement when the folder is presented.

II. Students who have failed to pass one competency test or who lack one recommendation or those who are currently enrolled in but have not yet completed Introduction to Education, Early Involvement, and English 112 may be admitted conditionally to the program if all other requirements have been met.

III. 1. Undegradutes entering under the old program must have filed a formal application for teacher education prior to September, 1982. However, the teacher education interview will be required.
2. Students who fail a competency test will receive mandatory tutoring before re-taking any competency test.

Requirements for Admission to Student Teaching

1. Formal written application by mid-term of the semester preceding the planned student teaching. Application forms may be obtained in the Department of Education office.
2. Senior standing is a prerequisite for admission to student teaching.
3. Completion of at least 90 semester hours of credit with at least a 2.5 grade point average in all courses attempted and 2.5 in all work attempted in the area, major, or minor fields for which certification is sought.
4. Completion of three-fourths of all required professional education courses with an academic standing of at least 2.5.
5. Completion of three-fourths of all coursework for the teaching major or area of concentration if student teaching is to be done in this specialization; or completion of all the coursework for the teaching minor if student teaching is to be done in the minor area.
6. Approval of the department in which teaching fields are sought.
7. Moral, social, and ethical behavior acceptable in the school community as well as in the community at large.
8. A valid and current medical examination which includes a tuberculosis test filed with the Teacher Education Committee.
9. Maintenance of good standing since admission to the Teacher Education Program.
10. Completion of institutional prerequisites with respect to time in residence and pre-student teaching laboratory experiences.
11. Acceptance by the Teacher Education Committee of the College.
12. No professional educational course with a grade below "C" will be accepted.

ELEMENTARY EDUCATION CURRICULUM

(This program must be completed before September 1, 1989.)

I. Preprofessional Course Requirements for Elementary Education Majors (1-8)
(No courses can be taken on a credit/fail basis except for Psychology 111 and the Social Science course. No courses can be taken on an Independent Study basis.)

A. Social Science (History 233 or Sociology 241 or Geography 241) ..... 3 semester hours

B. Introduction to Psychology (Psychology 111) ..... 3 semester hours

C. Children's Literature (English 355) ..... 3 semester hours

D. Structure on the Number Systems (Math 203 and 204) ..... 6 semester hours

E. Elementary School Art (Art 271) ..... 3 semester hours

F. Elementary School Music (Music 373) ..... 3 semester hours

G. Physical Education in the Elementary School (Physical Education 261) .. 3 semester hours

H. Science: Concepts, Processes and Inquiry (General Science 401) ..... 3 semester hours

I. Fundamentals of Speech (Speech 131) ..... 3 semester hours

J. One Biological and one Physical Science ..... 7 semester hours

II. Professional Course Requirements for Elementary Majors (1-8)
(These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option.)

A. Education 241 — Introduction to Education ..... 3 semester hours

B. Education 242 — Early Involvement ..... 3 semester hours

C. Education 351 — Human Growth and Development ..... 3 semester hours
(Prerequisite: Psychology 111)

D. Psychology 361 — Psychology of Learning ..... 3 semester hours

E. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours

F. Education 341 — Methods of Teaching Mathematics ..... 3 semester hours

G. Education 361 — Reading in the Primary Grades ..... 3 semester hours

H. Education 362 — Teaching Reading in the Content Areas ..... 3 semester hours

I. Education 432 — Methods and Materials in the Elementary School ..... 4 semester hours

J. Education 441 — Methods of Teaching Social Studies ..... 3 semester hours

K. Education 433 — Professional Interaction in the Schools ..... 3 semester hours

L. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

See Requirements for Admission to Student Teaching

For those students entering as freshmen during or after the fall semester 1985, a choice of three teaching certificates or a combination thereof is possible, i.e., Lower Elementary (grades K-4), Middle School (grades 5-8), and/or Secondary (grades 9-12). See the Head of the Education Department for more information.

SECONDARY EDUCATION CURRICULUM

I. Preprofessional Course Requirements for Students Preparing for Teaching in Secondary School.

A. Personal and Community Health (Health 270) ..... 3 semester hours

B. Introduction to Psychology (Psychology 111) ..... 3 semester hours

C. Majors, Minors, and Areas of Concentration*
An Area of Concentration ..... 48 semester hours
One Major ..... 30 semester hours
One Major of 30 semester hours and one Minor of 21 semester hours ..... 51 semester hours

D. Social Science (History 233, Sociology 241 or Geography 2410 ..... 3 semester hours

E. Fundamentals of Speech (Speech 131) ..... 3 semester hours

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*Choose any one of the 3 options listed.

Majors in subject combinations shall require 36 semester hours credit. In a combination of subjects for majors, no fewer than 12 semester hours shall be in each subject within the major. Method courses shall be in addition to those in the majors and minors. Education 362 is required of students preparing to teach English. A teaching minor in English shall require an additional 3 semester hours of credit beyond the usual 21 and must include a course in linguistics.

II. Professional Preparation for Secondary Teachers. These courses are to be taken in a six semester sequence in the following order.

A. Education 241 — Introduction to Education ..... 3 semester hours
(To be taken with Education 242)

B. Education 242 — Early Involvement ..... 3 semester hours
(To be taken with Education 241)

C. Education 351 — Human Growth and Development ..... 3 semester hours

D. Psychology 361 — Psychology of Learning ..... 3 semester hours
(Prerequisite: Psychology 111)

E. Special Education 365 — Foundations of Education for the Exceptional Child 3 semester hours
(Prerequisites: Education 241 and 242)

F. Education 452 — Methods and Materials for Secondary Education ..... 4 semester hours

G. Education 453 — Supervised Student Teaching in the Schools ..... 12 semester hours

H. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

See Requirements for Admission to Student Teaching.

EARLY ELEMENTARY EDUCATION CURRICULUM

I. Preprofessional Course Requirements for Early Elementary Education Majors (K-4)
(No courses can be taken on a credit/fail basis except for Psychology 111 and the Social Science course. No courses can be taken on an Independent Study basis.)

A. Social Science (History 233 or Sociology 241 or Geography 241) ..... 3 semester hours

B. Introduction to Psychology (Psychology 111) ..... 3 semester hours

C. Child and Adolescent Literature (English 355) ..... 3 semester hours

D. Structure of the Number System Math 203 and 204) ..... 6 semester hours

E. Elementary School Art (Art 271) ..... 3 semester hours

F. Elementary School Music (Music 373) ..... 3 semester hours

G. Physical Education in the Elementary School (Physical Education 261 ..... 3 semester hours

H. Fundamentals of Speech (Speech 131) ..... 3 semester hours

I. Introduction to Anthropology (Anthropology 221) ..... 3 semester hours

J. Introduction to Microcomputer Packages (Computer Information Systems 105) ..... 2 semester hours

K. Physical Education Service Course ..... 1 semester hours

I. Professional Preparation for Early Elementary Teachers (K-4)

A. Education 241-Introduction to Education ..... 3 semester hours

B. Education 242-Early Involvement ..... 3 semester hours

C. Education 351-Human Growth and Development ..... 3 semester hours
(Prerequisite: Psychology 111)

D. Psychology 361-Psychology of Learning ..... 3 semester hours
(Prerequisite: Psychology 111)

E. Special Education 365-Foundations of Education of the Exceptional Child ..... 3 semester hours
(Prerequisite: Psychology 111)

F. Education 341-Methods of Teaching Mathematics ..... 3 semester hours
(Prerequisites: Mathematics 203 and 204)

G. Education 361-Reading in the Primary Grades ..... 3 semester hours

H. Education 362-Teaching Reading in the Content Areas ..... 3 semester hours
(Prerequisite: Education 361)

I. Education 433-Supervised Student Teaching in the Elementary School ..... 12 semester hours
(6 hours in one grade level and 6 hours in a non-consecutive grade level)

J. Education 441-Methods of Teaching Social Studies ..... 3 semester hours

K. Education 442-Methods and Materials in the Elementary School ..... 4 semester hours
(Prerequisites: All 200- and 300-level courses listed under Preprofessional Requirements and Professional Preparation)

L. Education 488-Professional Interaction in the Schools ..... 3 semester hours

See Requirements for Admission to Student Teaching

II. Academic Emphasis
(Each student will complete a minimum of 21 semester hours in one of the following six options.)

A. ENGLISH/COMMUNICATIONS:
English 111, 112, 221 or 222 or 241 or 242, 355, 212, 421, Speech 131

B. FINE ARTS/HUMANITIES:
Art 132, 271, Music 121, 373, Speech 131 Religion 111 or 112 or 231, one elective in Religion or Music numbered 300 or above (3 hrs)

C. FOREIGN LANGUAGE:
German 111, 112, 211, 212, 331, 495 Independent Study (6 hrs) OR French 111, 112, 211, 212, 331, 495 Independent Study (6 hrs)

D. MATHEMATICS STUDIES:
Mathematics 203, 204, 211, Computer Science 131, three courses in Mathematics or Computer Science numbered 300 or above (9 hrs)

E. SCIENCES:
Physics 101, Biology 109, General Science 114, Environmental Science 110, eight (8) hours in Environmental, Physics, and/or General Science from courses numbered 300 or above. (Methods courses are not applicable)

F. SOCIAL AND BEHAVIORAL SCIENCES:
Geography 101, Economics 153 or 154, Political Science 101 or 231, History 201, 202, Anthropology 221, Psychology 361

For information on the academic emphasis components see the Head of the Department of Education
or a Planned Curriculum for Early Elementary Education.

MIDDLE GRADES EDUCATION CURRICULUM

I. Professional Professional for Middle Grades Teachers (5-8)

A. Education 241-Introduction to Education ..... 3 semester hour
(To be taken with Education 242)

B. Eduation 242-Early Involvement ..... 3 semester hours(To be taken with Education 241

C. Psychology 361-Psychology of Learning ..... 3 semester hour
(Prerequisite: Psychology 111)

D. Special Education 365-Foundations of Education of the Exceptional Child ..... 3 semester hour
(Prerequisite: Psychology 111)

E. Education 361-Reading in the Primary Grades ..... 3 semester hour

F. Education 362-Teaching Reading in the Content Areas ..... 3 semester hour
(Prerequisite: Education 361)

G. Education 443-Supervised Student Teaching in the Elementary School ..... 12 semester hour

H. Education 488-Professional Interaction in the Schools ..... 3 semester hour

See Requirements for Admission to Student Teaching

II. Specialization Component

A. Education 351-Human Growth and Development in the Middle Grades ..... 3 semester hour
(Prerequisite: Psychology 111)

B. Education 370-Curriculum Development for the Middle Grades ..... 3 semester hour

C. Education 442-Methods and Materials in the Elementary School ..... 4 semester hour
(Prerequisites: All 200- and 300-level courses listed under Professional Requirements and Professional Preparation)

III. Teaching Fields

(Each student will complete a minimum of 24 semester hours in two fields of study.)

A. ENGLISH AND COMMUNICATION:
English 111, 112, 241 or 242, 355, 401 or 421, 311 or 402, Speech 131, and one English Elective (3 hrs)

B. SCIENCE:
Biology 111, 233 or 321, 232 or 330 or 331, Physics 111 or 112, Chemistry 111, General Science 114, Environmental Science 111, 350

C. SOCIAL STUDIES:
History 111, 112, 201, 202, Political Science 110 or 211, Geography 101, Economics 153 or 154, Sociology 131 or 221

D. MATH OPTION I:
Mathematics 203, 204, 211, 250, 241, 331, Computer Science 231, and one Mathematics Elective (3 hrs)

E. MATH OPTION II:
Mathematics 241, 242, 243, 331, 332, 372, 402, 403, 471, Physics 211, 212, 213, 214, and one Mathematics Elective (3 hrs)

ASSOCIATE OF APPLIED SCIENCE IN VOCATIONAL EDUCATION (for vocational teachers)

	Credit Hours
English 111 and 112 — Freshman Composition	6
Psychology 111 — Introduction to Psychology	3
Speech 131 — Fundamentals of Speech	3
Natural Science Core Requirement	4
Humanities Core Requirement	3
Social Science Core Requirement	3
Experience Credit for Vocational Certification	6-9
Vocational Education Block (from state approved school) (transfer)	24
Free electives	9-12
	64

ASSOCIATE OF APPLIED SCIENCE IN EDUCATION*

	Credit Hours
English 111 and 112 — Freshman Composition	6
Natural Science (Environmental Science 100 recommended)	4
Sociology 131 — Introduction to Sociology or	3
Sociology 421 — Rural & Urban Sociology	
Psychology 111 — Introduction to Psychology	3
Humanities Requirement (speech or theatre recommended)	3
Art 271 — Elementary School Art	3
Music 373 — Elementary School Music	3
Education 241 — Introduction to Education	3
Education 351 — Human Growth and Development	3
Education 440 — Early Childhood Education	3
English 355 — Children's and Adolescent Literature	3
Health 270 — Personal and Community Health	3
Sociology 371 — Social Institutions	3
Health 361 — Principles of Nutrition	3
Special Education 365 — Foundations of Ed. for Exceptional Child	3
Supervised Experience in Early Childhood Education	3
Electives — Recommended from Appalachian Semester, Kentucky History, Typing, Recreational Leadership Arts & Crafts, & Structure of Number Systems)	12
	64

ASSOCIATE OF APPLIED SCIENCE FOR GRADUATES OF STATE VOCATIONAL SCHOOLS

	Credit Hours
Credit for 22-month post-high-school vocational program	48
English 111 — Freshman Composition	3
Social Science Core Requirement	3
Natural Science Core Requirement	4
Humanities Core Requirement	3
Free Elective	3
	64

	Credit Hours
Credit for 11-month post-high-school vocational program	24
English 111 — Freshman Composition	3
Social Science Core Requirement	3
Natural Science Core Requirement	4
Humanities Core Requirement	3
Elective Credits (planned curriculum developed & followed)	27
	64

A "C" (2.00) average is required and a minimum of 15 hours in residence.

For the vocational student wishing to continue his or her education to the Bachelor's degree level, a planned course of study (contract) will be developed so that the degree can be earned with an additional 64 hours of specified credit beyond the A.A.S. degree.)

Graduates of the 11-month vocational programs should plan additional hours of general education credits within their electives to better prepare for the 4-year degree.

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*Designed for those who work in day care centers and agencies dealing with small children where teacher certification is not required.

EDUCATION

Education 241. Introduction to Education. **(F,S,)(3)**
The purpose and function of education. Classroom and school organization, guidance services, library services, evaluation, reporting to parents and other phases of the school program.

Education 242. Early Involvement Internship. **(F,S)(3)**
A practical course in which students are assigned to local school classroom 3 hours per week, and meet periodically to discuss and generalize their experiences. Acquiring competence in the following: observation, diagnosis, instructional design and planning, use of media and new technology. To be taken concurrently with Education 241. A $5.00 fee is charged.

Prerequisite for the following courses is admission to the Teacher Education Program

Education 341. Methods of Teaching Mathematics in Elementary School. **(F)(3)**
Modern methods and materials for teaching mathematics in the elementary school. *Prerequisite:* Mathematics 203-204 or equivalent.

Education 342. Teaching Science in the Elementary School. **(F)(3)**
Preparation and development of science activities and teaching strategies involved in presenting these activities to elementary school children. The course will include a critical analysis of a variety of objectives, instructional materials, and evaluation techniques for elementary grades K-4.

Education 351. Human Growth and Development. **(F,S)(3)**
Basic concepts for understanding the development of the child and the adolescent. Includes field experience. Prerequisite: Psychology 111 (10 hours field experience).

Education 352. Human Growth and Development in the Middle Grades. **(On demand)(3)**
This course focuses on the physical, intellectual, personal, social and moral development of children in fourth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media will also be included.

Education 361. Reading in the Primary Grades. **(F)(3)**
Methods and materials for the teaching of reading in the primary grades including observations, micro-teaching demonstrations, making of lesson plans, and evaluation of a child's readiness.

Education 362. Teaching Reading in the Content Subjects. **(S)(3)**
Emphasis on study skills, individualized programs and reading in the content subjects. *Prerequisite:* (except for English majors) Education 361.

Special Education 365. Foundations of Education of the Exceptional Child. **(F,S)(3)**
Etiology and assessment of exceptional learning conditions; characteristics of exceptionalities; special education intervention. *Prerequisite:* Psychology 111 (10 hours field experience).

Education 370. The Middle School Curriculum. **(On Demand)(3)**
This course involves tracing the history of curriculum development in the United States, as well as identifying trends in the curriculum of the middle school. It will include curriculum design, middle school terminology and techniques, social and cultural forces, political forces, programs, organization and evaluation.

Education 401. Introduction to Counseling and Guidance. **(S)(3)**
Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges, and related service-oriented agencies. Essential counseling and guidance services, policies, practice and procedures. *Prerequisite:* Psychology 111.

Education 432. Methods and Materials in the Elementary School. **(F)(4)**
Emphasis on language arts, social studies, and science; directed observation. *Prerequisites:* Education 241, 341, 351, 361, and 362. Psychology 361; 90 semester hours college credit, quality point standing of 2.25 overall and at Union College; one semester residence. No late registration.

Education 433. Supervised Student Teaching in the Elementary School. **(S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and meals paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 436. Methods and Materials in the Middle School. **(On demand)(3)**
This course focuses on instructional strategies and materials needed for releasing the potential for the middle grade student leading from concrete to abstract learning. The course will include curriculum concepts and designs, innovative activities using hands-on-experiences, techniques of writing lesson plans, the development of a unit of work, materials for journal writing, class demonstrations and evaluation.

Education 440. Early Childhood Education. **(Sum)(3)**
Survey of the physical, emotional, mental, and psychological development of the child under six and the role of the kindergarten teachers in working with such a child.

Education 441. Methods of Teaching Social Studies. **(F)(3)**
Methods and materials for the teaching of elementary school social studies, including kindergarten through eighth grade curricula. The philosophies, terminology, and evaluation of methods and materials will be included.

Education 452. Methods and Materials in the Secondary School. **(F)(4)**
Current teaching methods, materials, and innovations in the secondary school with directed observations. *Prerequisites:* All 200- and 300-level courses listed under Pre-professional Course Requirements and Professional Preparation. (25 hours field experience.)

Education 453. Supervised Student Teaching in the Secondary School. **(F,S)(12)**
Under the direction of an experienced teacher, the student teacher directs the usual teaching activities in the classroom for a minimum of 12 weeks. Application should be made one full semester in advance of the time the teaching is to be done. *Prerequisite:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 468. Educational Media. **(Sum)(3)**
Practice in operating educational media and construction of classroom materials. Emphasis on educational television use in the classroom.

Education 488. Professional Interaction in the Schools. **(F)(3)**
Discusses the role of the professional teacher including professional values, school community relations, school finance and programs of the school, legal aspects and human interaction in the schools from a variety of perspectives and theories. Addresses the role of classroom management in the learning process.

Education 495. Independent Study. **(F,S,Sum)(3)**
Open only to advanced students in the field of Education who wish to do intensive reading in a specific interest area. *Prerequisite:* Twelve semester hours of Education and permission of the Head of the Department.

III. DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Larry Inkster, *Acting Department Head*
Health — Physical Education

HEALTH

Students preparing to teach in an elementary or secondary school in Kentucky are required to complete the following courses: for an elementary certificate, Physical Education in the Elementary School; for a secondary certificate, Personal and Community Health.

Requirements for a Minor in Health Education: Twenty-one semester hours which must include Health 270, 311, and 340. Courses must be chosen from those listed under Health Education major.

Health 131. First Aid and Safety Education. **(S)(3)**
Designed to aid the student in developing an understanding of the basic principles of accident prevention as applicable to the home, the highway, and the school. First aid measures for various injuries and illnesses are discussed and practiced.

Health 270. Personal and Community Health. **(F)(3)**
The relationship of bodily functions to personal health and grooming and to community and natural health.

Health 311. Health Education — K-12. **(S)(3)**
The experiences, activities, and instruction of elementary and secondary students that lead to intelligent self-direction of health behavior.

Health 340. Physiology and Anatomy. **(F)(3)**
A study of cellular construction, tissues, organs, and systems of the human body. A study of the functions of these organs and systems as it deals with health and physical education disciplines.

Health 361. Principles of Nutrition. **(F)(3)**
A study of the composition, nutritive value, and utilization of food.

Health 421. Community Health. **(F)(3)**
The social and cultural factors, the physical environment, and the health agencies and services as they relate to the health of the community.

Health 451. School and Community Health Workshop. **(Sum)(3)**
Reveals the relationship needed between the school and community to promote the total health of the population. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsored agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio-visual aids.

Health 461. Nutrition for Special Needs **(S)(3)**
A course focusing on the nutrition needs through the life cycle, energy metabolism, and therapeutic applications of nutrition.

Health 475. Critical Areas in Health. **(F,Sum)(3)**
Specific health problems confronting society today with particular reference to secondary age students.

Health 485. Field Experiences in Health. **(F,Sum)(3-6)**
A directed field experience in some phase of health, with consideration given to both the needs and interests of the student. Opportunities will be available for practical experiences in the school situation, official health agencies, and voluntary agencies.

Health 495. Independent Study. **(F,Sum)(1-3)**
Independent study for advanced students only.

PHYSICAL EDUCATION

Requirements for a Major in Physical Education: Students choosing to pursue a Secondary teaching certificate must take thirty semester hours which must include Physical Education 351, 361, 420, 421, Health 340 and Health 131 and four service courses. Physical Education 461 is required but will not count toward the required 30 hour major. Only two coaching courses may be counted toward the 30 hour major.

A maximum of eight semester hours of service courses may be credited toward graduation. Physical education majors must take four service courses. This is the maximum that can be applied to a major, but others may be taken as electives. The following service courses also meet the elementary and secondary requirement for physical education.

Physical Education 111. Beginning Swimming (Non-swimmers only) **(F,S,Sum)(1)**

Physical Education 112. Intermediate Swimming. **(F)(1)**

Physical Education 113. Senior Lifesaving. **(F)(1)**
Prerequisite: Intermediate swimming or permission of the instructor.

Physical Education 121. Team Sports. **(F)(1)**

Physical Education 122. Volleyball. **(F,S)(1)**

Physical Education 132. Golf. **(F,S,Sum)(1)**

Physical Education 133. Tennis and Badminton. **(F,S,Sum)(1)**

Physical Education 134. Personal Fitness and Aerobic Activities. **(F)(S)(1)**

Physical Education 135. Beginning Tumbling. (Even years). **(S)(1)**

Professional Courses

Physical Education 241. History of Physical Education. **(S)(3)**
From primitive man through the present, with particular emphasis on Greek physical education, European systems, and development of physical education in America. Some research into the history of various sports. (Even years only.)

Physical Education 251. Prevention and Care of Athletic Injuries. **(F)(3)**
Practical study and evaluation of various methods of conditioning. Emphasis on preventive and protective measures, practical study involving basic principles of massage, bandaging, strapping and first aid. Analysis of the instruction and operation of the training room.

Physical Education 261. Physical Education in the Elementary School. **(F)(3)**
The role of the classroom teacher in physical education. How to correlate and evaluate. The application of games, movements, exploration, rhythms, self-testing activities, and screening tests.

Physical Education 271. Sports Officiating. **(F)(2)(3)**
Rules and officiating techniques in football, basketball, baseball, and track. (Odd years only.)

Physical Education 301. Theories of Coaching Football. **(F)(3)**
The practical study of the game of football, as it applies to the coach and player. A study of the fundamental skills, principles, and concepts.

Physical Education 302. Coaching Men's and Women's Basketball. **(F)(3)**
(Even years only.)

Physical Education 304. Coaching Baseball, and Softball. **(F)(3)**
(Even years only.)

Physical Education 305. Coaching Track and Field for Men and Women. **(S)(3)**
(Odd years only.)

Physical Education 321. Recreational Leadership. **(S)(3)**
Leadership techniques in music, social games, arts and crafts, dramatics, camping, nature, and sports. Designed to aid students in enriching their own leisure time and to prepare for leadership in teaching, full-time Christian service, and social service.

Physical Education 351. Tests and Measurements in Health and Physical Education. **(S)(3)**
Evaluating health and Physical Education by the construction and administering of tests. Emphasizes reliability, objectivity, and validity of tests, and grading system.

Physical Education 361. Organization and Administration of Physical Education and Athletics. **(S)(3)**
Administration of physical education and athletic programs in schools, with special emphasis on philosophy and leadership styles. Includes budget and finance, office management, curriculum development, facilities, legal factors, and public relations.

Physical Education 420. Physical Education for the Exceptional Child. **(F)(3)**
Health conditions which require the physical education program to be adapted to meet the needs of individuals with handicapping conditions will be studied. Additional emphasis on national, state, and local agencies designed to help meet the needs of these individuals. Some work with a local, exceptional population may be required.

Physical Education 421. Kinesiology. **(S)(3)**
An analysis of human motion and its relation to athletic and gymnastic activities; practical application of these principles.

Physical Education 461. Physical Education in the Secondary School. **(F)(3)**
Topical areas such as philosophy, teacher certification, competencies, and professional activities will be covered. Curriculum construction, instructional methods, class management and techniques for teaching specific activities will be considered as they relate to the secondary level.

Physical Education 495. Independent Study. **(F,S,Sum)(3)**
Independent work for advanced students only.

MILITARY SCIENCE PROGRAM (Army ROTC)

ROTC at Union College is affiliated with Eastern Kentucky University's program. Instructors from Cumberland College or EKU serve in an instructional capacity on Union's campus. Army ROTC has a dual mission: (1)the enhancement of citizenship through the development of leadership potential and an appreciation of the roles and missions of our national defense structure; (2) the preparation of students who are qualified by education, experience, attitude, and inherent qualities for service in the U.S. Army Reserves, National Guard, or regular active service.

Completion of the Introduction to Military Science (100-200 level) meets the first of these missions by providing the student a foundation for the development of leadership and management skills through life experience and also by serving as a prerequisite for entry into the advanced military science program. The student incurs no military obligation for participation in the Introduction to Military Science. Students whose future employment goals may require leadership or managerial skills, those with an interest in our national defense structure, or those who wish to explore the benefits of a career in the U.S. Army Reserves, National Guard, or regular service are encouraged to take the introductory courses.

For additional information, including questions on ROTC scholarships and other assistance, see military science officers on campus or the division chair of Applied Sciences.

MILITARY SCIENCE

Military Science 101. Group Dynamics of Leadership **(F)(2)**
Development of leadership and problem solving abilities; examination of leadership style and counseling techniques; comparison of civilian and military leadership; and analysis of the Constitutional historical basis for the U.S. Army.

Military Science 102. Dynamics of Leadership and Operational Teamwork. **(S)(2)**
A study of theories, principles, techniques and fundamentals of map reading and their application. Classes are systematically arranged to promote student participation in group leadership development and problem solving techniques.

Military Science 202. American Military History. **(F)(3)**
Examines U.S. Military history from pre-revolutionary times to post-Vietnam; defines the principles of war; discusses political-military interactions; develops leadership through group contribution in case studies which apply the principles of war to historical periods. This course counts toward the history major.

Military Science 203. Intermediate Leadership and Management. **(S)(2)**
Provides students continued development of basic military skills through practical leadership experiences in performing emergency medical treatment, drill and ceremonies, physical training and rifle marksmanship. Principles of leadership and management are presented in classroom discussion.

Military Science 287. Military Science Practicum (Basic). **(On Demand)(2,5,6)**
Introduces Military Science in a comprehensive summer field course designed to be taken in lieu of MLSC 101, 102, 202, or 203. This course emphasizes practical field application and leadership development.

Military Science 301. Advanced Leadership and Management I. **(F)(3)**
Introduction to advanced leadership and management, emphasizing the branches of the Army, communication systems, and equipment. Defines principles of leadership and develops leadership through practical application as a leader in field training and physical conditioning.

Military Science 302. Advanced Leadership and Management II. **(S)(3)**
Develops leadership and management ability and military skills in military communications, weapons, and tactics. Develops leadership and command presence through student presentations and practical application as a leader in field training and physical conditioning.

Military Science 401. Fundamentals and Dynamics of the Military Team I. **(F)(3)**
Develop staff officer skills in leadership and management through decision making and problem solving techniques through military planning, administrative and logistical management and detailed training management.

Military Science 402. Fundamentals and Dynamics of the Military Team II. **(S)(2)**
Discusses the impact of world affairs on U.S. Armed Forces; defines overall professional and ethical responsibilities of military officers; development of military officers; development of military management techniques; establishes a basic understanding of military justice and the Geneva convention.

Military Science 487. Military Science Practicum (Advanced) **(On Demand)(6)**
Develops leadership through intensive six-week field course of rotating leader/command experience in problem analysis, decision making, and troop leading, while providing in-depth coverage of technical and tactical subjects.

DIVISION OF HUMANITIES

Dianne R. Ferris, *Chairman*
Department of English and Foreign Languages
Department of Music and Fine Arts
Department of Religion and Philosophy

HUMANITIES

Humanities 101, 102, 103, 104. Chapel. **(F,S)(1)**
Participation in chapel programs is designed to aid the student in achieving the breadth and flexibility of mind necessary for full participation in a complex culture. Four major themes are addressed: (a) God and the relations between God, the universe, and man; (b) significant ethical questions and moral issues; (c) the ceremony and liturgy of the Church; (d) significant art and music in the Christian tradition. May be repeated for a maximum of four credits in a four-year course of study.

Humanities 202. Introduction to Film. **(S)(3)**
Film is studied as an art form concerned with the human values of mankind. Appreciation of film and its basic elements and techniques is stressed. (Odd years only.)

Humanities 204. History of the Motion Picture. **(S)(3)**
A study of film's development as an distinctive medium of communication and as an art form. The course offers explorations of landmark films from the silent period to contemporary times. (Even years only.)

I. DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

Jan M. Finkel, *Department Head*
English — French — German — Spanish
Journalism (Area of English)

BACHELOR OF ARTS DEGREE IN ENGLISH

Requirements for a Minor in English *Semester Hours*

An additional elective English course and Education 362 are required for those seeking teacher certification.

ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 241 or 242	Major American Writers	3
ENGL 311	Intermediate Composition	3
ENGL 372	Shakespeare	3
ENGL 351 or	The Novel: Defoe to Brontes	
ENGL 352 or	The Novel: ca. 1850 to Faulkner	
ENGL 361	Modern Poetry	3
ENGL 401 or	Modern Grammar	
ENGL 421	History of the English Language	3
		21

Requirements for a Major in English

In addition to all courses required for the minor, students take one of the following courses:

ENGL 321	English Renaissance Literature	3
ENGL 322	Restoration and 18th Century Literature	3
ENGL 331	English Romantic Period	3
ENGL 332	Victorian Period	3
and		
ENGL 472	Seminar in Literature	3
	English Elective	3
		30

Requirements for a Major in English with a Journalism Emphasis Students take twenty-four hours of English courses (listed below) and twenty-three hours of Journalism courses which must include JOUR 200, 225, 227 and four practicums. Practicums may be fulfilled by working either on the "Union Express" (JOUR 180 to 480) or on the **Stespean** (JOUR 190 to 490) or by choosing a combination of the two practicum sets. Four additional "Union Express" practicums and four additional **Stespean** practicums are available to students during their junior and senior years.

ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 241	Major American Writers I	3
ENGL 242	Major American Writers II	3
ENGL 311	Intermediate Composition	3
ENGL 401 or	Modern Grammar	
ENGL 421	History of the English Language	3
ENGL 402 or	Advanced Composition	
	300-400 level literature course	3
	Elective 300-400 level literature course	3
		24

Requirements for an Area in English

Forty-eight semester hours (thirty of which must satisfy the requirements for a English major), including all courses required for the minor, English 402 or 419, Speech 131 and additional courses in drama or speech.

Students preparing to teach high school English are required to take Education 362 and should elect the English major, minor, or area. They should consult the Education Department for full information about course requirements.

All students majoring or minoring in English are advised to take at least six hours of a foreign language.

ENGLISH

English 090-091. English as a Second Language. **(F,S)(0)**
A preliminary, non-credit course for the foreign student seeking to acquire sufficient competence in listening to and speaking the English language to be able to communicate effectively in the classroom and in the college community. (On demand).

English 110. Developmental English. **(F,S)(3)**
Training in college-level language skills. Designed to prepare students in English 111 and other introductory courses.

English 111. Freshman Composition I. **(F,S,)(3)**
Writing papers from a variety of rhetorical approaches and stressing interdisciplinary connections. Reading of short prose pieces as models and for discussion. Must precede English 112.

English 112. Freshman Composition and Literature. **(F,S)(3)**
Literary works and forms from the ancient world to the Middle Ages provide the basis for longer papers emphasizing critical writing and documentation.

A general prerequisite for 200-level courses is the successful completion of English 111 and 112 with a grade of "C" or better.

English 212. Western Literature. **(F,S)(3)**
Survey of Western Literature from early Christian era through 17th Century. *Prerequisite:* English 112.

English 221, 222. Survey of English Literature. **(F,S)(3)**
The first half includes the Middle Ages, the Renaissance, the Restoration and Eighteenth Century, and the second includes the Romantic and Victorian periods, and the Twentieth Century. Either course may be taken separately and not necessarily in sequence.

English 241, 242. Major American Writers. **(F,S)(3)**
The first half (1830-90) begins with Poe and ends with Emily Dickinson, and the second (1890-1950) begins with Twain and ends with Faulkner. Either course may be taken separately and not necessarily in sequence.

English 311. Intermediate Composition. **(S)(3)**
A writing course designed to reinforce and expand writing skills. Expository and argumentative papers of substantial length and an extensive research paper. Appropriate selected readings for discussion and analysis to provide perspective for the student's own writing. *Prerequisite:* English 112 and junior or senior standing.

A general prerequisite for literature courses numbered 300 and above is the successful completion of any one of English 212, 221, 222, 241, or 242. Students are urged to consult with members of the department before enrolling for advanced work.

English 321. English Renaissance Literature. **(F)(3)**
A study of poetry, prose, and non-Shakespearean drama, beginning in the early sixteenth century and ending with Milton. (Odd years only.)

English 322. Restoration and Eighteenth Century Literature. **(S)(3)**
Prose and poetry of the neo-classical age, beginning with Dryden and his contemporaries and extending through Samuel Johnson. (Odd years only.)

English 331. English Romantic Period. **(F)(3)**
The prose and poetry of the first third of the 19th century, emphasizing the work of Wordsworth, Coleridge, Byron, Shelley, and Keats. (Even years only.)

English 332. Victorian Period. **(S)(3)**
Major poets and prose writers, emphasizing the contributions of such masters as Tennyson, Browning, and Arnold. (Even years only.)

English 351, 352. The Novel. **(F,S)(3)**
Historical study of the growth of the novel as a form. The first course includes novels from Defoe through the Brontes; the second begins ca. 1850 and goes through Faulkner. Either course may be taken separately and not necessarily in sequence. (Even years only.)

English 355. Children's and Adolescent Literature. **(F)(3)**
A course that surveys a wide variety of fiction and poetry enjoyed by children and adolescents and suggests ways of evaluating these works as literature.

English 361. Modern Poetry. **(F)(3)**
American and British poetry, with consideration of ways of reading, criticizing, and writing verse in this century. (Odd years only.)

English 372. Shakespeare. **(S)(3)**
A critical approach to selected histories, comedies, and tragedies, focusing on their timeless human, literary and dramatic qualities.

A general prerequisite for 400-level courses is junior standing.

English 401. Modern Grammar. **(F)(3)**
A survey of modern approaches to the study of language beginning with the structuralist view of linguistic analysis through the theories of generative grammar to the must recent developments in generative semantics. Considerable attention will be paid to the possibilities of practical applications of linguistic theory. (Even years only.)

English 402. Advanced Composition. **(S)(3)**
For the student who wishes to become a more competent writer. Research papers, factual narratives, argumentation, and "creative" writing are assigned according to the needs and aptitude of the student. (Even years only.)

English 419. Composition for Teachers. **(S)(3)**
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself. (On demand.)

English 421. History of the English Language. **(F)(3)**
A study of the origins and development of the English language from Anglo-Saxon times to the present. (Odd years only.)

English 472. Seminar in Literature. **(S)(3)**

Intensive study of a major writer, group, or literary topic. May be repeated once for credit.

English 495. Independent Study. (F,S)(3)
Intensive individual work under supervision, in some phase of English, American, or world literature linguistics, or composition not otherwise covered in the curriculum. *Prerequisites:* Twenty-four hours of English above English 111, 112, and permission of the head of the department. May be repeated for credit.

JOURNALISM

Journalism 180, 280, 380, 480. Journalism Practicum. (F,S)(1)
Actual operation of campus newspaper provides experience in reporting, photojournalism, and use of print shop equipment 380 and 480 include management. To be taken in sequence.

Journalism 190, 290, 390, 490. Journalism Practicum. (F,S)(1)
Actual operation of campus yearbook provides experience in the basics of photojournalisms, design, and layout. 390 and 490 include management. To be taken in sequence.

Journalism 200. Introduction to Communication. (S)(3)
Open to all students, this course examines communication theory and its applications in newspapers, magazines and television, the history of journalism, career opportunities and needed skills within the news industry. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 225. Newswriting. (Formerly English 225). (F)(3)
Basic course in reporting the news. Focus on information gathering, news story content formats, working under deadlines, and use of Associated Press style. *Prerequisite:* English 112 and typing proficiency of 20 w.p.m.

Journalism 226. Feature Writing. (S)(3)
A basic course for journalists. Introduces feature story formats, interview techniques, staff and freelance markets in newspapers and magazines. *Prerequisite:* typing proficiency of 20 w.p.m. (Odd years only.)

Journalism 227. Editing, Layout. (Formerly English 227). (F)(3)
Basic instruction in copy editing, page layout and design, headline writing, photo handling, and outline writing.

Journalism 233. Photojournalism. (F)(3)
Reporting the news with a camera. Stresses composing and shooting with a 35mm camera and includes darkroom instruction and experience. Lab fee: $25. (Even years only.)

Journalism 331. Ethics and Media Law. (on demand)(3)
Examines the segment of U.S. laws which governs freedom of the press (First amendment, libel, invasion of privacy, pornography/obscenity). Reviews press ethicists and applies their theories to newspapers, magazines and television.

Journalism 332. Editorial and Public Relations Writing. (on demand)(3)
The specialized area of opinion journalism is the focus of this course. Introduces the six categories of editorials, advocacy journalism, editorial cartoons, press releases, and writing for organizations. *Prerequisites:* typing proficiency of 20 w.p.m.

Journalism 333. Sports Writing. (on demand)(3)
Focuses on news and feature coverage of sports events, personalities and trends. Examines techniques for interviewing, analyzing statistics, and acquiring sports information. Prerequisite: typing proficiency of 20 w.p.m.

Journalism 345. Print Design, Production, typography I. (F)(3)
Creative and practical aspects of designing and preparing materials in print. Experience in use of photographic print shop equipment. Lab fee: $20. *Prerequisite:* typing proficiency of 20 w.p.m. (Even years only.)

Journalism 346. Print Design, Production, Typography II. (S)(3)
In-depth continuation of Journalism 345. Lab fee: $20. *Prerequisite:* Journalism 345. (Even years only.)

Journalism 450. Seminar in Journalism. (S)(3)
Intensive study of journalism issues, including, but not limited to, press freedom, copyright, libel, slander, fair comment, evolution of print media and its current concerns. *Prerequisite:* 12 hrs. of journalism, Junior or Senior status and recommendation of course instructor. (Even years only.)

Journalism 485. Internship-Reporting or Editing. (4)
Professional experience with staff of an area newspaper. May be repeated once. *Prerequisite:* 14 hrs. of journalism. Junior or Senior status and recommendation of journalism instructor.

Journalism 485. Internship-Layout, Design. **(4)**
Professional experience at an area newspaper in layout, paste-up, headline writing, photograph handling, cutlines, and advertisements. May be repeated once. *Prerequisite:* 4 hrs. of journalism. Junior or Senior status, and recommendation of journalism instructor.

Journalism 486, 487, 488, 489. Journalism Practicums. **(F,S)(1)**
Position of high level responsibility on campus newspaper provides continued experience in editing, layout, and newspaper management. *Prerequisite:* Journalism 480.

Journalism 492, 493, 496, 497. Journalism Practicums. **(F,S)(1)**
Position of high level responsibility on campus yearbook provides continued experience in photojournalism, layout, and yearbook management. *Prerequisite:* Journalism 490.

FRENCH

The program offers the opportunity to gain some understanding of France and its culture as well as a basic knowledge of the French language. Students offering more than one entrance until in French and students transferring from other colleges should consult with the instructor before registering for any course in French.

French 111. Elementary French I. **(F)(3)**
Basic French grammar; simple reading, practice in the oral and written language. (Even years only.)

French 112. Elementary French II. **(S)(3)**
Continuation of French 111. *Prerequisite:* French 111 or equivalent. (Even years only.)

French 211. Intermediate French I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* French 112 or equivalent. (Odd years only.)

French 212. Intermediate French II. **(S)(3)**
Continuation of French 211. *Prerequisite:* French 211 or equivalent. (Odd years only.)

French 331. French Civilization. **(S)(3)**
The economic, social, and cultural development of France, French contributions to world civilization. May not count toward fulfillment of the language requirement. **No knowledge of French required.** (Even years only.)

French 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of French literature or civilization. May be repeated for credit.

GERMAN

The program offers the opportunity to gain some understanding of Germany and its culture as well as a basic knowledge of the German language. Students offering more than one entrance unit in German and students transferring from other colleges should consult with the instructor before registering for any course in German.

German 111. Elementary Germany I. **(F)(3)**
Basic German grammar; simple reading; practice in the oral and written language.

German 112. Elementary German II. **(S)(3)**
Continuation of German 111. *Prerequisite:* German 111 or equivalent.

German 211. Intermediate German I. **(f)(3)**
More detailed study of grammatical structure, reading of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* German 112 or equivalent.

German 212. Intermediate German II. **(S)(3)**
Continuation of German 211. *Prerequisite:* German 211 or equivalent.

German 331. German Civilization. **(S)(3)**
The economic, social, and cultural development of Germany; German contributions to world civilization. May not count as part of the language requirement. **No knowledge of German required.** (Odd years only.)

German 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of German literature or civilization. May be repeated for credit.

Spanish

The program offers the opportunity to gain some understanding of Spain and its culture as well as a basic knowledge of the Spanish language. Students offering more than one entrance unit in Spanish and students transferring from other colleges should consult with the instructor before registering for any course in Spanish.

Spanish 111. Elementary Spanish I. **(F)(3)**
Basic Spanish grammar; simple reading; practice in the oral and written language; cultural background.

Spanish 112. Elementary Spanish II. **(S)(3)**
Continuation of Spanish 111. *Prerequisite:* Spanish 111 or equivalent.

Spanish 211. Intermediate Spanish I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* Spanish 112 or equivalent. (Even years only.)

Spanish 212. Intermediate Spanish II. **(S)(3)**
Continuation of Spanish 211. *Prerequisite:* Spanish 211 or equivalent. (Even years only.)

II. DEPARTMENT OF MUSIC AND FINE ARTS

Betty S. Stroud, *Department Head*
Art — Drama and Speech — Music

ART

Union College course offerings in the field of art provide service courses for several curricula and opportunities for exploration and growth in artistic self-expression.

Art 132. Introduction to Art. **(S)(3)**
An introduction to Art outlining basic approaches, principles, techniques and media as well as styles of expression, both past and present.

Art 271. Elementary School Art. **(F)(3)**
A studio course involving many kinds of art projects in media suitable to and practicable for elementary grades.

Art 373. Art History. **(on demand)(3)**
The intensive study of major movements, personalities, and styles of architecture, painting and sculpture of world art.

Art 495. Independent Study in Art. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

DRAMA AND SPEECH

Requirements for a Major: Union College offers a comprehensive major with two options. Students may either fulfill the requirements for teacher certification in Drama/Speech or major in Drama. Other than the Speech courses required for the first option, there is very little difference between the two.

Core courses required for the major include Drama 251, 352, 331, 332, 365, 366, and 451; a total of twenty-one semester hours.

Students electing the Drama/Speech option are also required to take twelve hours in approved courses in Speech, including Speech 131, and three hours of upper division dramatic literature courses.

Students electing the Drama option are also required to take six hours of upper division dramatic literature courses and Drama 461.

Requirements of a Minor in Drama and Speech: Twenty-one semester hours,including Drama 251, 331, or 332, 365, 366 and Speech 131, 231. Cannot be used for a teaching minor certificate.

Requirements for a Minor in Drama: Twenty-one semester hours in Drama, including Drama 251, 331, 332, 365, 366. Can be used for teacher certification.

Drama 131. Introduction to the Theatre. **(F)(3)**
A broad overview of the history of theatre and drama as well as an introductory study of acting, designing, and directing.

Drama 181, 281, 381, 481. Theatre Practicum. **(F,S)(1)**
Actual practical experience in Union College Theatre productions in either performance or technical areas.

Drama 251. Fundamentals of Acting. **(S)(3)**
An introduction to the Stanislavsky system of acting involving exercises, analysis, and performance of short scenes.

Drama 321. European Drama Since 1945. **(on demand)(3)**
A study of representative plays in translation by modern writers from Germany, France, Italy, and Poland.

Drama 331. Scene and Light Design. **(F)(3)**
Fundamentals of set and light design for the stage. Practical study of set construction and lighting equipment. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 332. Costume and Make-up Design. **(S)(3)**
Fundamentals of costume design for the stage. Practical study of costume construction and application of stage make-up. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 352. Advanced Acting. **(on deman)(3)**
Analysis and performance of scenes from contemporary drama and Shakespeare. *Prerequisite:* Drama 251 or permission of instructor.

Drama 365. History of the Theatre to 1642. **(F)(3)**
A study of the theatre, drama, and criticism from the Greeks to 1642. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 366. History of the Theatre from 1642. **(S)(3)**
A study of the theatre, drama, and criticism from 1642 to the present. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 451. Directing. **(on demand)(3)**
Study of directing techniques, and script analysis culminating in the staging of a one-act play. *Prerequisite:* Permission of instructor.

Drama 461. Senior Project in Theatre/Drama. **(on demand)(3)**
A supervised project involving advanced work in some area of Theatre/Drama; criticism, history, directing, designing or performing. Open only to students majoring in Drama.

Drama 495. Independent Study in Drama. **(on demand)(3)**
Independent study or research on approved topics.

Speech 131. Fundamentals of Speech. **(F)(3)**
Study and practice of gathering and organizing material for informative and persuasive speeches.

Speech 231. Oral Interpretation of Literature. **(S)(3)**
Analysis and performance of narrative prose, poetry, and drama.

Speech 341. Debate. **(on demand)(3)**
The study and practice of formal debate. Case preparation and methods of organization using the national college debate topic for the year. Designed to help students think more clearly, organize their ideas more effectively, and present their conclusions more persuasively.

Speech 342. Persuasion. **(on demand)(3)**
This course serves to acquaint studies with the theory and practice of persuasive techniques. Students will develop their own powers of persuasion and learn to recognize the rhetorical techniques employed by others.

MUSIC

Objectives:

1. To provide the required curricula for the Bachelor of Arts and the Bachelor of Science in Music, the Bachelor of Music in Church Music, the Bachelor of Music in Music Education.
2. To offer group and private instruction which provides for the development of individual musicianship of the music major and music minor.
3. To offer opportunities for participation in music ensembles and music theatre for the music majors, music minors, and general college students.
4. To provide recitals, concerts, and music theatre for the cultural enrichment of the campus and community.

Music Library: The music library, located in the Fine Arts Building, contains records, scores, and listening facilities.

DEGREES

Students majoring in music at Union College may pursue the following degree programs:

Bachelor of Music in Music Education
Bachelor of Music in Church Music
Bachelor of Arts in Music
Bachelor of Science in Music
Bachelor of Science in Music and Business

Bachelor of Music in Music Education (K-12 Certificate)

Candidates for the Bachelor of Music in Music Education will take the following courses (see also Liberal Education and graduation requirements).

(Part of general studies for music majors; prerequisite to admittance to the major in music education.)

Option I, Instrumental Emphasis

		Semester Hours
MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 161-162	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157 158, 159	Ensembles	8
MUSC 263-264	Sight-Singing and Ear-Training	2
MUSC 173-174	Piano Class	2
MUSC 417	Senior Recital	1
		36

II. Professional Courses

MUSC 271	Music in the Public Schools	2
MUSC 373	Elementary School Music	3
MUSC 375	Instrumental Methods and Materials	2
MUSC 471	Marching Band Techniques	2
SPED 365	Foundations of Education for the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching	12
		33

III. Additional Music Requirements

MUSC 171	String Instruments Class	1
MUSC 172	Woodwind Instruments Class	1
MUSC 175	Brass Instruments Class	1
MUSC 176	Percussion Class	1
MUSC 365	Arranging	2
MUSC 474	Conducting Instrumental	2
		8
	Total	77

Option II, Vocal Emphasis

MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Sight-Singing and Ear-Training	2
MUSC 173-174	Piano Class	
177-178	Voice Class	2
MUSC 417	Senior Recital	1
MUSC 475	Pedagogy-Vocal	2
		38

II. Professional Courses

MUSC 271	Music in the Public Schools	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
SPED 365	Foundations of Education for the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching	12
		32

III. Additional Music Requirements

MUSC 365	Arranging	2
MUSC 473	Conducting Choral	2
		4
	Total	74
Keyboard majors:	Private Voice	2
	Total	76

Bachelor of Music in Church Music

Candidates for the Bachelor of Music in Church Music will take the following courses (see also Liberal Education and graduation requirements).

I. Music Core *Semester Hours*

MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157 158, 159	Ensembles	8
MUSC 263-264	Sight-Singing and Ear Training	2
MUSC 173-174	Piano Class	
177-178	Voice Class	2
MUSC 417	Senior Recital	1
		44

II. Church Music and Professional Courses

MUSC 333	Church Music Administration	2
MUSC 335	Hymnology	2

MUSC 337	Church Organ	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
MUSC 436	History and Philosophy of Church Music	2
MUSC 437	Church Music Practicum	4
MUSC 231	Handbells	1
		19

III. Additional Music Requirements

MUSC 171, 172, 175	Instrumental Techniques (choose 2)	2
MUSC 473	Conducting Choral	2
MUSC 474	Conducting Instrumental	2
MUSC 462	Counterpoint	2
	Private Piano or Organ (for voice major)	
	or	
	Private Voice (for instrumental major)	2
		10

IV. Courses in Religion

RLGN	Old Testament History, Literature and Interpretation	3
RELG 112	New Testament History, Literature and Interpretation	3
RELG 355	World Religions	3
		9
	Total	82

Bachelor of Arts and Bachelor of Science in Music

Candidates for the Bachelor of Arts or Bachelor of Science Degree in Music will take the following music courses (see also Liberal Education and graduation requirements):

I. Academic Emphasis

MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 421-422	Music History Seminar	6
MUSC 111-212	Applied Music*	8
	Music Elective	2
	Ensemble	0
		40

II. Applied Emphasis

MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-412	Applied Music	16
	Ensemble	0
		40

*Eight (8) hours of Applied music credit may include study in a secondary area, but the 212 level must be reached in the student's major applied area.

Bachelor of Science in Music and Business

Candidates for the Degree of Bachelor of Science in Music and Business will take the following courses (see also Liberal Education and graduation requirements):

I. Business Core

BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
BUAD 311 or 312	Business Law	3
ACTG 271-272	Accounting	6
COMP 131	Introduction to Computer Information Systems	3
DCON 153-154	Principles of Economics	6
		27

II. Music Requirements

MUSC 161-162	Foundations of Music	8
MUSC 262-262	Harmony	6
MUSC 111-412	Applied Music	8
MUSC 322	Music History	3
MUSC 171, 172 173, 175 176	String, Woodwind, Piano, Brass and Percussion classes (choose any 3)	3
		28

III. Additional Business Requirements

BUAD 272	Salesmanship	3
OFAD 302	Business Communications	3
	Upper Division Business Elective	3
	Field Placement	3-10
		12-19

Minor in Music

Twenty-one semester hours, including Music 161-162; three semester hours selected from either Music 321 or 322; two semester hours of music electives; two years of ensemble; and completion of the 202-level of course numbering in one field of applied music, or eight hours of applied music arranged differently with the consent of the department.

DEPARTMENTAL REQUIREMENTS

Specific requirements for music majors and minors are listed in the Music Department Handbook. Students will be held responsible for requirements in the Handbook. More detailed information is given for the following:

1. Entrance Test: All music majors and minors entering the Department for the first time shall take a placement test in theory and functional piano. The test is for placement only, and in no way affects the entrance to music study.
2. Piano Proficiency: All candidates for the Bachelor of Music in Music Education and the Bachelor of Music in Church Music must demonstrate proficiency as required for Music 202, Applied Music Secondary, Piano.
3. Ensemble Requirements: All music majors are required to participate in a minimum of seven semesters in one ensemble within their major performance area and two semesters in another ensemble (8 of the 9 hours must be taken for credit except for those enrolled in the BA or BS curricula). All music minors are required to participate in a minimum of four semesters in an ensemble within their major performance area.
4. Recital and Concert Attendance: Attendance at departmental recitals and concerts is required of all music majors and minors during each semester of applied music study.
5. Recital Requirements: Candidates for the Bachelor of Music degree must present a full recital on their major instrument or in voice. Candidates for the Bachelor of Arts or Bachelor of Science degree in Music may be invited to present a recital by the music faculty.

APPLIED MUSIC—SECONDARY LEVEL

These courses are designed for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, a major with an academic emphasis, any music major taking lessons on a secondary instrument, and elective credit.

Music 101-102. Applied Music. **(F,S)(1-2)**
Freshman level secondary applied music study.

Music 201-202. Applied Music. **(F,S)(1-2)**
Sophomore Level secondary applied music study.

Music 301-302. Applied Music. **(F,S)(1-2)**
Junior Level secondary music study.

Music 401-402. Applied Music. **(F,S)(1-2)**
Senior level secondary applied music study.

APPLIED MUSIC—MAJOR LEVEL

These courses are designed for students enrolled in Music and Business and for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, applied emphasis, and for the Bachelor of Music in Church Music or Music Education.

Music 111-112. Applied Music. **(F,S)(1-2)**
Freshman major or minor level applied music study.

Music 211-212. Applied Music. **(F,S)(1-2)**
Sophomore major or minor level applied music study.

Music 311-312. Applied Music. **(F,S)(1-2)**
Junior major level applied music study.

Music 317. Junior recital **(F,S)(0-1)**

Music 411-412. Applied Music. **(F,S)(1-2)**
Senior major level applied music study.

Music 415-416. Applied Field Literature. **(on demand)(2)**
A study of the literature for the student's major instrument, and related instruments where appropriate, with attention to stylistic characteristics and ornamentation.

Music 417. Senior Recital. **(F,S)(0-1)**

Music 418-419. Sight-Reading and Accompanying. **(on demand)(1)**
Proficiency in reading the various clefs, vocal scores; and accompaniments, with emphasis on the techniques of sensitive accompanying. Keyboard majors and selected minors only.

HISTORY AND APPRECIATION

Music 121. Introduction to Music. **(F)(3)**
An historical approach to music appreciation focusing on period and style. Extensive listening to music literature. Not open to music majors or minors.

Music 122. Introduction to the History of America Popular Music. **(S)(3)**
An historical approach involving the study of styles and personalities beginning with the origins of jazz and ending with current trends and concepts. Open to all students.

Music 321, 322. Music History. **(F,S)(3)**
A study of representative music both written and recorded and readings coordinating and integrating music skills. (321) Antiquity through 1600. (322) Baroque period to the present.) *Prerequisite:* Music 162.

Music 421-422. Music History Seminar. **(on demand)(3)**
Intensive study of a selected period or genre. Major paper required. *Prerequisite:* Music 321,322.

CHURCH MUSIC

Music 231. Handbell Methods. **(F)(1)**
A study of the techniques, methods, materials, and repertory of English handbell ringing. *Prerequisite:* Music 162 or consent of instructor.

Music 333. Church Music Administration. **(F)(2)**
The role of the minister of music as related to the graded adult, youth, and children's choir programs, budget and calendar planning, the congregation, the multiple staff church,and the denomination.

Music 335. Hymnology. **(S)(2)**
The study and analysis of the hymns of the church, their sources, development, and usage in contemporary service.

Music 337. Church Organs. **(F)(2)**
The study of the history of the instrument, types of organs, basic upkeep, techniques, and service repertoire.

Music 436. History and Philosophy of Church Music. **(S)(2)**
A detailed, historical study of music within the church relating to its origin and development, with emphasis upon liturgies and historic philosophical positions of the church on music.

Music 437. Church Music Practicum **(on demand)(4)**
One semester or one summer of supervised field work in an approved church. *Prerequisite:* Consent of the Music faculty.

ENSEMBLES

Music 151. Orchestra. **(F,S)(0-1)**
Open by audition or invitation. Participation in the activities of the Chamber Orchestra of the Cumberlands, a college/community orchestra of modest size. One rehearsal per week. May be repeated for credit.

Music 152. Union College Singers. **(F,S)(0-1)**
Open by audition only; performs in chapel, Christmas concert, Spring concert, graduation, tours, and festivals. Limited to forty-nine students; four rehearsals per week. May be repeated for credit.

Music 153. Stage Band. **(F,S)(0-1)**
Open by audition only. A jazz-oriented ensemble of appropriate instrumentation limited to twenty students. Two rehearsals per week. May be repeated for credit.

Music 154. Pep Band. **(F,S)(0-1)**
Open to all interested wind and percussion students. A performance group intended to give support and entertainment at home athletic events. Two rehearsals per week. May be repeated for credit.

Music 155. Brass Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 156. Collegium Musicum. **(on demand)(0-1)**
Open to interested students. A performance group intended to give the student acquaintance with less frequently performed literature. One rehearsal per week. May be repeated for credit.

Music 157. Woodwind Chamber Ensembles. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the student enrolled. One rehearsal per week. May be repeated for credit.

Music 158. String Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 159. Union College Chamber Singers. **(F,S)(0-1)**
A vocal ensemble composed of 10-20 singers whose repertory consists of choreographed popular music as well as traditional types of vocal chamber music. Open to members of the Union College Singers by audition.

THEORY

Music 161-162. Foundations of Music. **(F,S)(4)**
A combined course in the areas of music theory, history, and literature. Five periods per week.

Music 261-262. Harmony. **(F,S)(3)**
Continuation of Music 161-162 in the area of part-writing and analysis. Advanced chromatic harmony of the middle Romantic period. Three periods per week. *Prerequisite:* Music 162.

Music 263-264. Ear-Training. **(F,S)(1)**
Sight-singing ear-training, and dictation to be taken concurrently with Music 261-262. Two periods per week. *Prerequisite:* Music 162.

Music 361-362. Form and Analysis. **(F,S)(2)**
The development of musical forms from small units to large. Study of large scale analytic techniques including those necessary for late 19th and 20th Century Music. *Prerequisite:* Music 262.

Music 365. Arranging. **(S)(2)**
Basic techniques of orchestration and arranging. *Prerequisite:* Music 162.

Music 461-462. Counterpoint. **(461 on demand, 462 F, even year)(2)**
The vocal counterpoint of Palestrina and the instrumental counterpoint of Bach. *Prerequisite:* Music 162.

Music 465. Theory Seminar. **(on demand)(3)**
An advanced course in music theory, including a study of contemporary practices. *Prerequisite:* Music 362, and permission of the instructor.

MUSIC EDUCATION

Music 171. String Instruments Class. **(F, even year)(1)**
Class instruction in strings.

Music 172. Woodwind Instruments Class. **(S, odd year)(1)**
Class instruction in woodwinds.

Music 173-174. Piano Class. **(F,S)(1)**
Class instruction in piano.

Music 175. Brass Instruments Class. **(F, odd year)(1)**
Class instruction in brass.

Music 176. Percussion Instruments Class. **(S, even year)(1)**
Class instruction in percussion.

Music 177-178. Voice Class. **(F,S)(1)**
Class study for students who are not prepared to study at the level of private applied voice.

Music 271. Music in the Public School. **(F)(2)**
Fundamentals of public school education with special emphasis on the philosophy and foundations of music education and the position of music within the entire curriculum. Includes directed observation of and participation in public school classroom activities.

Music 373. Elementary School Music. **(S)(3)**
Methods and Materials in the elementary school. Will include fundamental ability at the keyboard, the fundamentals of music, and library research. Includes die observation of and participation in public school classroom activities for music majors.

Music 374. Vocal Methods for the Secondary School. **(F)(3)**
Materials, rehearsal techniques, and vocal health for the secondary school student. Includes directed observation of and participation in public school classroom activities. *Prerequisite:* Music 271 and Junior standing.

Music 375. Instrumental Methods & Materials. **(S)(2)**
Teaching Instrumental Music in the Public Schools: Procedures, techniques, curriculum, scheduling, administration, evaluation, materials, equipment, and community relations. Includes directed observation of and participation in public school classroom activities. *Prerequisite:* Music 171, 172, 175, 176, 271, and Junior standing.

Music 471. Marching Band Techniques. **(F)(2)**
Functions, organization, and direction of a school marching band program. *Prerequisite:* Music 271 and Junior standing.

Music 473. Choral Conducting. **(F, odd year)(2)**
Techniques and literature.

Music 474. Instrumental Conducting. **(F, even year)(2)**
Techniques and literature.

Music 475. Pedagogy. **(on demand)(2)**
Techniques and principles of private and class instruction, emphasis on recommended materials.

INDEPENDENT STUDY

Music 495. Independent Study. **(F,S)(2-3)**
Independent study and/or research on approved topics. *Prerequisite:* Permission of the student's major professor. May be repeated for credit.

III. DEPARTMENT OF RELIGION AND PHILOSOPHY

Michael McCoy *Department Head*
Christian Education — Religion — Philosophy

Courses in this Department are designed to acquaint the student with the Judaeo-Christian tradition and the other great religious traditions of mankind and with the great traditions and disciplines of human thought; to deepen his awareness of himself and of the human community; to cultivate his powers of critical examination and the meaning and direction of human existence.

Studies in religion are especially recommended for students of art, history, and literature, and for students preparing for Christian vocations.

Studies in philosophy are especially recommended for pre-professional education for such vocations as the Christian ministry, college teaching, law, journalism, creative writing, and art, as well as for students of history, literature, and the sciences.

Pre-ministerial preparation. The American Association of Theological Schools has stated that the college work of students planning to enter the ministry should result in at least the following: 1. Ability to speak and write English clearly and correctly, to think clearly, and to read at least one foreign language; 2. Acquaintance with the world of men and ideas, the world of nature, and the world of human affairs; and 3. A sense of achievement through the mastery of fields of study and through honors work or other independent study. The student is expected to become well grounded in English, philosophy, and history, and to gain some background in social studies (especially psychology and sociology), the natural sciences, languages, and religion.

CHRISTIAN EDUCATION

In recognition of increasing demand for trained young men and women as full-time Christian workers in the unordained ministry of the local church, to serve in the capacities of pastor's assistant, director of youth work, or Director of Christian Education, as specific four-year course of study has been arranged, using the facilities of various departments. It is designed to meet the basic needs of students who wish to go directly into church positions without graduate work.

A 24-hour major is recommended in Religion, including Religion 222, plus courses in music, drama, and Appalachian studies. A second major or minor in drama or music is often helpful. The following three courses should supplement the major:

Speech 131. Fundamentals of Speech
Physical Education 321. Recreational Leadership
Psychology 402. Counseling Theories and Techniques.

RELIGION

Requirements for a Major: The twenty-four hour major, recommended for Christian Education and pre-ministerial students, must include courses 111, 112, 311, plus Philosophy 261. The thirty-hour major may include Philosophy 371.

Requirements for a Minor. Twenty-one semester hours, at least nine of which must be in courses numbered above 300.

Religion 101. Conference Studies. **(on demand)(0)**
A study of books required by the Methodist Church for the local preacher's license. Required of all recipients of ministerial loan-grants who have not yet obtained the license to preach.

Religion 111. Old Testament History, Literature, and Interpretation. **(F)(3)**
The history of Israel from the earliest times to the Maccabean Age. Historical and literary criticism and religious significance of the emergence of Judaism.

Religion 112. New Testament History, Literature, and Interpretation. (S)(3)
Attention to author, date, origin, historical and religious significance. Religion 111 recommended.

Religion 121. Primitive Religions. (F)(3)
Survey of the origins and characteristics of rites, legends, and myths of technologically undeveloped societies. (Odd years only.) Students may not take both Religion 121 and 321.

Religion 127. Archaeology and the Old Testament. (S)(3)
Archaeological discoveries related to the Old Testament era. Students may not take both Religion 127 and 327.

Religion 201-202. Elementary New Testament Greek. (F,S)(3)
A semi-inductive approach to koine Greek recommended for persons interested in religion as well as for religion majors.

Religion 212. Old Testament Prophets. (F)(3)
The nature of prophecy and the prophetic movement in Israel from its beginning with Moses to its close with the book of Jonah. (Even years only.)

Religion 222. Administration and Education in the Local Church. (S)(3)
Administrative responsibilities of the Director of Christian Education as related to the pastor, local church governing body, and the congregation. Theory and practice of Christian Education with special attention to planning a year's program in the local church.

Religion 231. The Life and Teachings of Jesus. (S)(3)
The world into which Jesus was born and an interpretation of his messianic consciousness, personality, activities, and teachings. Religion 112 recommended. (Even years only.)

Religion 241. The Life and Teachings of Paul. (F)(3)
The world of Paul, his life, teachings, and significance, using his letters as the primary source. Religion 112 recommended. (Even years only.)

Religion 301-302. Elementary Old Testament Hebrew. (F,S)(3)
A study of sufficient grammar to read simple Old Testament passages, recommended for persons interested in religion as well as for religion majors.

Religion 311. Introduction to Christian Thought. (S)(3)
Examination of tradition and contemporary understanding of the Christian faith, with emphasis on the nature of God and of man; the significance of Christ and the Church; the relation of religion to morality; the meaning of Creation and Redemption; and the interpretation of Human Destiny. *Prerequisite:* Religion 112. (Even years only.)

Religion 321. Primitive Religions. (F)(3)
Survey of the origins and characteristics of rites, legends, and myths of technologically underdeveloped societies and examination of anthropological and psychological explanatory theories. (Odd years only.,) Students may not take both Religion 121 and 321.

Religion 327. Archaeology and the Bible. (S)(3)
Archaeological discoveries related to the Old and New Testament eras, supplemented by wide reading in books, magazines and newspapers, and class reports, color slides and movies. Students may not take both Religion 127 and 327.

Religion 353. Church History. (on demand)(3)
The origin and development of the Christian Church from its beginning through the Reformation.

Religion 355. World Religions. (S)(3)
A descriptive account of the faith and practices of present-day world religions, with emphasis on Hinduism, Buddhism, Confucianism, Islam.

Religion 479. Seminar in Religion. (on demand)(3)
Intensive study on a special subject with oral and written reports. Possible topics include The Fourth Gospel, Apocalyptic Literature, Pauline Theology, Wisdom Literature, The Apostolic Period. *Prerequisite:* Advanced standing and permission of the instructor.

Religion 495. Independent Study. (F,S)(3)
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY

Requirements for a Minor. Twenty-one semester hours.

Philosophy 151. Introduction to Philosophy. **(F,S)(3**
Both a study of the nature of philosophy, its aims, problems, and methods, and an exercise in philosophizing in which the student clarifies constructively and evaluates critically his own and othe understandings of life.

Philosophy 202. Logic. **(S)(3**
Cultivation of rational acuity through an examination of the procedures and limits of rational discourse (Odd years only.)

Philosophy 261. Philosophy of Religion. **(F)(3**
An introduction to basic modern concepts, issues, and methods in the philosophical examination o religion. (Odd years only.)

Philosophy 371. Ethics. **(F)(3**
Cultivation of reasoning in moral decision-making through an examination of traditional ethical the ories, contemporary moral issues and the structure of moral decision.

Philosophy 376. History of Western Philosophy I: Ancient and Medievel. **(on demand)(3**
Philosophical thinking in its cultural context, from its birth through the classical and medieval eras

Philosophy 377. History of Western Philosophy II: Modern. **(on demand)(3**
The rise and development of modern thought-forms through the nineteenth century.

Philosophy 378. History of Western Philosophy III: Contemporary. **(on demand)(3**
Twentieth century western thinking and its nineteenth century backgrounds, with particular referenc to modern idealism, phenomenology, existentialism, pragmatism and the analytical movement. *Pre requisite:* any philosophy course.

Philosophy 479. Seminar in Philosophy. **(on demand)(3**
Intensive study of a special topic such as Epistemology, Metaphysics, Plato, Kant, Permission o instructor required.

Philosophy 495. Independent Study. **(F,S)(3**
Independent study or research on approved topics. May be repeated for credit.

DIVISION OF NATURAL SCIENCES

Robert W. Swanson, *Chairman*
Biology — Chemistry — Environmental Studies
General Science — Mathematics — Physics
Coal Mining Technology

PRE-PROFESSIONAL PROGRAMS

Since professional schools vary considerably in their admission requirements, the student is advised to select the professional school he wishes to attend later, and then choose pre-professional courses accordingly. The science faculty should be consulted before registration in order to assist the student in preparing a course schedule. For details of a specific program, the following faculty members should be consulted.

Dentistry — Rosen
Engineering — Carter
Medical Technology — Rosen
Medicine — Khatri, Vancil
Optometry — Rosen
Pharmacy — Khatri
Physical Therapy — Rosen
Veterinary Medicine — Rosen

PHYSICAL THERAPY

Union College provides a two year curriculum which allows students to complete courses required for entrance into the Physical Therapists Assistant (PTA) program at Jefferson Community College in Louisville or the Physical Therapy Program at the University of Kentucky in Lexington.

Union College and Jefferson Community College have entered into an agreement whereby students from southeastern Kentucky may work toward an Associate of Applied Science degree and qualify to be a PTA. The student will take courses at Union College during the first two years and complete the program at Jefferson Community College during the third years. Jefferson Community College reserves two positions annually for qualified Union College students. To qualify for graduation from this program, a student must also present a Red Cross First Aid Certificate earned within the last four years. Students who enter this program will be asked to state in writing their intent to return to southeastern Kentucky to work as PTA's.

The Department of Physical Therapy at the University of Kentucky has approved Union's coursework for the two year Pre-Professional Phase of their program. Admission to the Professional Phase at the University of Kentucky is based on competition and is not guaranteed.

DEGREE IN MEDICAL TECHNOLOGY

Union College has cooperative agreements with University of Louisville and The Methodist Hospital of Kentucky, Pikeville, in which the student attends Union College for three years and, upon acceptance, enters the cooperating institution and receives clinical training in medical technology for twelve months. On satisfactory completion of the program the student is awarded a bachelor's degree in medical technology and should be qualified for a national certifying examination.

COMBINED DEGREE IN ENGINEERING

A Cooperative "Three-Two Plan" has been worked out with the University of Kentucky and Auburn University in which the student attends Union College for three years pursuing certain pre-engineering courses in addition to a solid program in liberal arts. At the end of the three years, upon the recommendation of Union College, he enters the cooperating university or any accredited engineering school as a junior and in two additional years completes all the requirements for the B.S. degree in Engineering.

Both the B.A. or B.S. from Union College and a B.S. in Engineering from the cooperating university are awarded at the end of the fifth year.

COMBINED DEGREES IN HEALTH SCIENCES

Students may elect a Bachelor's degree in pre-professional studies at Union College or may arrange for transfer to accredited medical, dental, veterinary medicine, optometry, or medical technology schools for their professional work after three years. On completion of the professional studies, they will also be awarded their Bachelor's degree from Union College. (See the section on Combined Degrees.)

SCIENCE EDUCATION MAJORS (SPECIALIZATION FOR HIGH SCHOOL CERTIFICATION)

The following Areas of Concentration are acceptable for the requirements for the specialization component of the Provisional High School Certificate.

1. AREA IN MATHEMATICS-PHYSICAL SCIENCE
   The requirements are a total of 48 semester hours with 15 semester hours of chemistry; 15 semester hours of physics numbered 211 and above, including laboratory; 15 semester hours of mathematics numbered 241 and above; 3 semester hours of electives chosen from chemistry courses and physics courses numbered 211 and above, or mathematics courses numbered 241 and above. At least 18 semester hours must be in courses numbered 300 and above. See Department of Education for professional requirements.
2. AREA IN SCIENCE
   The requirements are a total of 48 semester hours with 12 semester hours of biology; 12 semester hours of chemistry; 12 semester hours of physics courses numbered 211 and above, including laboratory; environmental studies 350; 9 semester hours of electives chosen from biology, chemistry, or physics courses numbered 211 and above. At least 21 semester hours must be in either biology,chemistry, or physics. At least 18 semester hours must be in courses numbered 300 and above. See Department of Education for professional requirements.
3. TEACHING MINORS
   A teacher education student who selects a minor in biology, chemistry or physics is required to complete one of the following: the area of concentration in science; the area of concentration in mathematics-physical science; or a teaching major in either mathematics, biology, chemistry or physics.
4. MIDDLE GRADES CERTIFICATION
   A minimum of twenty-eight semester hours including Biology 111, 233 or 321; 232 or 330 or 331; Environmental Studies 110, 350; Physics 105, 111 or 112; and Chemistry 111. Laboratory experiences with the physics and chemistry classes are optional but strongly recommended.

BIOLOGY

Requirements for a Major: Thirty semester hours in Biology are required. Biology 111, 232, 233, 361, 441, and 452 must be included. Required science cognates consist of Math 111 and 211; Chemistry 111-112, and 131-132; Physics 101, 110, and 112; General Science 471. Recommended science cognates consist of Math 241; Chemistry 212, and 311-312; Physics 211-212, and 213-214 in place of the required physics courses at the 100 level.

Requirements for a Minor. Twenty-one semester hours in Biology are required. Biology 111, 232, and 233 must be included.

Biology 109. Elements of Biology. **(F,S,Sum)(3)**
A course designed for non majors intended as an introduction to the principles of biology through a survey of the major animal and plant groups. The morphological features of the taxanomic groups characteristic of southeastern Kentucky with attention to their adaptations to natural habitats will be emphasized.

Biology 110. Elements of Biology Lab. **(1)**
Optional lab to accompany Biology 109.

Biology 151. Medical Terminology. (F)(2)
The study of the specialized terminology of medical science. Recommended for pre-professional students, biology majors, allied health students, and students in other health-related fields. This course does not meet the biological science requirement for teacher education. *Pre- or corequisite:* Biology 111 except in specific associate degree programs where this is not required.

Biology 232. General Zoology. (S)(4)
A survey of the animal kingdom with emphasis on animal diversity, evolution, and environmental relationships. Additional topics include energy metabolism, taxonomy, reproduction, population phenomena, behavior and sociology.

Biology 233. General Botany. (F)(4)
A survey of the plant kingdom from the blue-green algae through the flowering plants. Emphasis is given to morphology and to evolutionary relationships. Appropriate discussions of plant physiology, plant taxonomy, and human economic importance are included.

Biology 234. Microbiology. (S)(4)
An introduction to the classification, morphology, physiology, and genetics of the bacteria, fungi, viruses, and micrometazoans, and their roles in nature, health, and industry. Laboratory work stresses techniques for the culture and identification of microorganisms. A portion of the course is devoted to immunology.

Biology 315. Vertebrate Biology (4)
The anatomy, physiology, taxonomy, ecology, behavior, and evolution of the vertebrate phyla with emphasis on the species endemic to southeastern Kentucky.

Biology 321. Field Biology. (3)
Field investigations including observation, collection, and identification of local fauna and flora are offered under discrete course headings including: Limnology, Ornithology, Entomology, Local Flora, Dendrology, and Mycology. Pertinent field data is collected and analyzed appropriately.

Biology 330. Anatomy and Histology. (F)(4)
A study of the tissues, organs, and organ systems of vertebrates with emphasis on the human body in health-related sciences.

Biology 331. Human Physiology. (S)(4)
A study of the functioning of the human organ systems with normal and clinical considerations. *Prerequisite:* Chemistry 112 and 132.

Biology 350. Parasitology. (F)(4)
An intense study of protozoan and metazoan parasites with an emphasis on morphology, life cycles, pathology and control. The laboratory component emphasizes methods used to 1) necropsy host animals 2) prepare parasites for identification and 3) analyze host pathology by employing histological techniques. A slide collection of various parasites is required. *Prerequisites:* Biology 111 and Biology 232.

Biology 361. Genetics (F)(4)
A study of the principles of inheritance including Mendelian, population, and cytogenetics. *Prerequisite:* Math 111. Prior completion of Behavioral Science 245 is recommended.

Biology 441. Ecology. (4)
A study of the relationships between organisms and their abiotic and biotic environment including biogeochemical cycles, population dynamics, diversity, and pollution of terrestrial and aquatic ecosystems. *Prerequisite:* Biology 232 and 233. Completion of Biology 361 is recommended.

Biology 452. Cell Biology (4)
A sophisticated treatment of the structure, biochemistry,and functioning of life at the cellular level. Emphasis is given to bioenergetics, enzyme kinetics, molecular genetics, immunology,and organelle physiology. *Prerequisite:* Math 111, Chemistry 112, and sixteen hours in biology. Prior completion of physics and organic chemistry is recommended.

Biology 495. Independent Study and Research. (F,S)(1-3)
An introduction to the methods of science through original research. For advanced students who have demonstrated potential for performing an independent investigation of a substantive problem. The problem is chosen and carried out in collaboration with the instructor. A typewritten report in publication style is required.

CHEMISTRY

Requirements for a Major. Thirty semester hours of Chemistry including Chemistry 111, 112, 13
132, 212, 311, 312, and 342. Science cognates consist of Physics 211, 212, 213, 214, 311; Mathematic
111, 241, 242; and General Science 471.

Requirements of a Minor. Twenty-one semester hours which should include Chemistry 111, 11
131 and 132, 311 and 312.

Chemistry 111-112. General Chemistry. **(F,S)(**
A systematic study of the fundamentals and applications of the experimental and theoretical law
of chemistry. Major topics include nomenclature, stoichiometry, chemical thermodynamics, equil
briuim, acid-base reactions, atomic and molecular theory and structure, chemical kinetics and nuclea
chemistry. Examples and problems are drawn from all areas of chemistry. Concurrent registratio
in General Chemistry Laboratory, Chemistry 131-132, is highly recommended for all students. *Pre
requisite:* Math 111 which may be taken concurrently.

Chemistry 131-132. General Chemistry Laboratory. **(F,S)(**
Laboratory experiments in general chemistry that illustrate basic principles and develop laborato
skills. Experiments are coordinated with the General Chemistry topics. Inorganic qualitative analys
is included in Chemistry 132. Three hours of laboratory per week. Concurrent registration of previou
completion of Chemistry 111-112 is required. No credit may be received for Chemistry Laborato
131-132 without the simultaneous or prior completion of the corresponding lecture courses Chemist
111-112.

Chemistry 212. Quantitative Analysis. **(F)(**
A study of important volumetric and gravimetric analyses presented from a modern theoretic
standpoint. Also an introduction to the study of advanced methods of analysis including some newe
instrumentation techniques. *Prerequisite:* Chemistry 112 and 132.

Chemistry 311-312. Organic Chemistry. **(F,S)(**
A course in the chemistry of organic compounds. Unitized laboratory work is designed to illustrat
the basic principles of organic chemistry. *Prerequisite:* Chemistry 112 and 132.

Chemistry 342. Physical Chemistry. **(S)(**
A study of atomic structures and chemical bonding in terms of modern quantum theory. Topic
include molecular spectra, physical methods of investigation and chemical kinetics. *Prerequisit*
Math 242 and Physics 212. (Even years only.)

Chemistry 411. Inorganic Chemistry. **(F)(**
A systematic study of the structure, properties and reactions of non-carbon elements, with emphas
on the non-metals and the transition metals. Topics include atomic-molecular structure and bondin
physical methods of investigation, organometallic chemistry and bioinorganic chemistry. *Prerequisit*
Chemistry 312. (Odd years only.)

Chemistry 421. Biochemistry. **(on demand)(**
Study of chemistry, energetics and metabolism of biomolecules, such as, carbohydrates, protein
lipids, nucleic acids, enzymes and vitamins with reference to living systems. *Prerequisite:* Chemist
312.

Chemistry 495. Special Problems. **(F,S)(**
This is an introduction to the methods of scientific research. The course is designed for the advance
student who has demonstrated ability to do independent work in Chemistry. It will consist of
particular problem decided upon after consultation with the instructor. Upon conclusion of the wo
a typewritten and bound report-thesis may be required. An examination may or may not be give
depending on the nature of the problem.

ENVIRONMENTAL STUDIES

Requirements for a Minor. Twenty-four hours, to be chosen by the student, the student's majo
advisor, and an advisor from Environmental Studies. Courses are also listed under the various de
partments to which they relate. The required core: Environmental Studies 101, Biology 109 or 11
Economics 251 and Environmental Studies 313. The remainder of the courses are to be chosen fro
other Environmental Studies courses or the following recommended electives: Biology 315, 321, 44
Geography 241; Mathematics 125; Philosophy 371; Sociology 311, 371, 421 and certain experiment
courses.

Environmental Studies 101. Man and the Environment. **(F)(3)**
A multi-disciplinary course in which basic ecological principles are developed and used to show human impact on natural eco-systems. Topics include endangered species, impact of population growth, land use and management problems, food production and demands.

Environmental Studies 110. Physical Systems of the Environment. **(S)(4)**
A study of the physical environment as the home of man. Emphasis on distribution and interaction of environmental variables (weather, landforms, vegetation, soils, and climate). This course may be used to fulfill the physical science requirement for students seeking teacher certification. Laboratory activities included.

Environmental Studies 113. Geology of Coal. **(S)(3)**
Introduction to Physical Geology,with an emphasis on the geology of coal; environmental problems and energy needs will be explored.

Environmental Studies 244. Reclamation and Land Use. **(S)(3)**
A detailed study of how surface mining affects the natural environment and processes used to reclaim the land and restore it to a natural and/or useful state. *Prerequisite:* Coal Technology 242.

Environmental Studies 313. Environmental Policy. **(F)(3)**
A study of the decision-making processes and the consequences of alternative courses of action on environmental quality. Analyzes the impact of public opinion, the various branches of government and pressure groups on environmental/energy policies at the federal and state levels. *Prerequisites:* Environmental Studies 101 and an introduction political science course, or permission of instructor., (Odd years only.)

Environmental Studies 350. Man's Geologic Environment. **(S)(4)**
Significance of regional and local geological features and processes in land use planning. Use of geological information to reduce conflicts in utilization of mineral and water resources and damage due to natural hazards. *Prerequisites:* Environmental Studies 110 or Environmental Studies 113. (Odd years only.)

Environmental Studies 469. The Appalachian Environment. **(Sum)(3)**
Conservation of natural resources including soil, water, wildlife and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. *Prerequisites:* Two courses in environmental studies or biology and an introductory economics course.

Environmental Studies 487. Field Practicum in Environmental Studies.

GENERAL SCIENCE

Neither a major nor a minor is offered.

General Science 114. Introduction to Astronomy. **(S)(4)**
An introduction to the elements of astronomy. Constellation identification, telescope operation, properties of the moon and planets, solar features, stars, galaxies, and cosmology.

General Science 115. Astronomy Lab. **(F)(1)**
Experiments and activities that illustrate telescope use, star and Constellation identification, analysis of data from photographs and spectrum charts, etc. Activities are coordinated with General Science 114.

General Science 124. Introduction to Physical Therapy. **(S)(2)**
A general orientation to the historical background, philosophy and professional ethics of physical therapy, interprofessional relationships between members of the health care team; concepts of health and disease; overview of the total medical spectrum, medical technology, modalities used in physical therapy, and orientation to clinical service departments and their administration.

General Science 401. Science: Concepts, Processes and Inquiry. **(S)(3)**
The student will examine the processes science such as collecting data, measuring, predicting, formulating hypotheses, experimenting, etc. As materials from such programs as ESS, SCIS IME, IIS, ISCS, PSSC, etc., are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching science will be stressed along with individualized instruction, learning theory, laboratory equipment use (commercial and home-made) and multimedia instruction. *Prerequisite:* Admission to Teacher Education Program.

General Science 471. Science Seminar **(S)(1)**
A lecture/discussion of selected topics of interest, lead by faculty members of the Division of Natural Sciences, invited speakers, and student participants. May be repeated once; a student can earn a maximum of two credit hours through this course. All natural science majors must take this course at least once. *Prerequisite:* Natural science major with Junior or Senior standing, or permission of the instructor.

MATHEMATICS

Requirements for a Major: Thirty semester hours consisting of mathematics courses numbered 241 and above; Physics 211, 212, 213, and 214.

Requirements for a Minor: Twenty-one semester hours consisting of mathematics courses numbered 241 and above, and including Mathematics 241 and 242. Mathematics 203 and 204 are also required in addition to the minor for students seeking middle grade or secondary certification.

Requirements for a Minor in Math Education: Twenty-five semester hours including Mathematics 203, 204, 211, 250, 241 and 331. Computer Information Systems 231 is also required. Behavioral Science 245 or Mathematics 372 may be substituted for Mathematics 211.

Mathematics 100. Elements of Mathematics. **(F,S)(3)**
This course is intended for students who need to improve their arithmetic and elementary algebra skills to taking other mathematics courses or courses requiring quantitative reasoning. The course includes a brief review of whole number arithmetic (particularly prime factorization, exponents, and perfect squares), an extensive review of fractions, decimals, ratio and proportion, percent, and an introduction to algebra (including arithmetic of integers, algebraic expression, and linear equations).

Mathematics 108. Intermediate Algebra. **(F)(3)**
This course is intended for students with a weak background in high school algebra who want to know more about the subject and/or plan to take Mathematics III, College Algebra and Trigonometry. The course includes a review of the real number system (particularly integers and irrational numbers), operations with polynomials, operations with algebraic fractions, simplification of radical expressions, solutions of equations and inequalities (linear quadratic, higher order, and simultaneous), and an introduction to graphs and functions. *Prerequisite:* Successful performance on entrance exam covering arithmetic and elementary algebra (given on first day of class).

Mathematics 111. College Algebra and Trigonometry. **(F,S)(4)**
Brief review of intermediate algebra including expressions, equations, and inequalities; graphs of relations; functions as a specific type of relation; graphs of functions; systematic graphing, combining functions and finding inverses; exponential and logarithmic functions; solving simultaneous equations using matrix methods; right triangle trigonometry; general trigonometry; trigonometric functions, their graphs and inverses; trigonometric identities and equations.

Mathematics 125. Graphic Analysis. **(F)(3)**
Basic map reading for geologic and topographic maps, scaled drawings, use of planimeter, excavation sections, coal tonnage estimation, methods and procedures of three-dimensional modeling from topographic maps as a basis of engineering calculations.

Mathematics 203-204. Structure of the Number System. **(F,S)(3)**
Historical development of the numeration system from an intuitive to a logical approach based upon set theory, definitions of the basic operations on whole numbers and their properties extended to integers, rationals, and irrationals; study of why and how of algorithms for all operations; topics in informal geometry.

Mathematics 211, Basic Statistics. **(S)(3)**
Basic concepts of descriptive and inferential statistics. Illustrations of applications in the fields of education, business, sociology, psychology, and natural science. *Prerequisite:* high-school algebra or permission of the instructor.

Mathematics 232. Surveying. **(S)(3)**
Principles, calculations, and field practice in surveying, measuring distances and elevations, stadia method, map reading, land areas, care and use of instruments. *Prerequisite:* Mathematics 108 or equivalent, or permission of the instructor.

Mathematics 241. Intro. to Calculus and Analytic Geometry. **(S)(4)**
Inequalities, the straight line, conic sections, limits, the derivative, differentiation of algebraic functions, applications of the derivative, extrema, and the antiderivative. *Prerequisite:* Mathematics 111 or permission of instructor.

Mathematics 242. Intermediate Calculus and Analytic Geometry. **(F)(4)**
The integral, applications of the integral, logarithmic and exponential functions, trigonometric functions, hyperbolic functions, techniques of integration, L'Hospital's Rule and indeterminate forms, and improper integrals. *Prerequisite:* Mathematics 241.

Mathematics 243. Advanced Calculus and Analytic Geometry. **(S)(4)**
Topics selected from polar coordinates, vectors, solid analytic geometry, partial differentiation, multiple integration, infinite series, and differential equations. *Prerequisite:* Mathematics 242.

Mathematics 331. Introduction to Linear Algebra. **(F)(3)**
Vector algebra in Euclidean spaces, lines and planes in space, matrices and linear equations, groups, and rings. *Prerequisite:* Math 111 and the permission of the instructor. (Odd years only.)

Mathematics 332. Linear Algebra. **(S)(3)**
Vector spaces, subspaces, linear independence, linear transformations, determinants, inner product spaces, orthogonality,and unitary transformations. *Prerequisite:* Mathematics 331. (Odd years only.)

Mathematics 333. Modern Algebra **(on demand)(3)**
An introduction to abstract algebra including groups, subgroups, quotient groups, isomorphism theorems, rings, and ideals. *Prerequisite:* Mathematics 241 or permission of the instructor.

Mathematics 372. Probability and Mathematical Statistics. **(F)(3)**
Theoretical probability using point set approach, probability as a frequency ratio; probability for finite sample spaces; conditional probability; joint and continuous distributions, binominal distribution; Baye's theorem; statistical applications of probability; theory of sampling and variance. *Prerequisite:* Mathematics 242, which may be taken concurrently, and permission of the instructor. (Even years only.)

Mathematics 402. Functions of a Complex Variable. **(on demand)(S)(3)**
Complex numbers, analytic functions,elementary functions of a complex variable, Cauchy's formula, Liouville's theorem, Laurent's series, residues, contour integration, conformal mapping, physical applications. (Even years only.)

Mathematics 403. Introduction to Analysis. **(on demand)(F)(3)**
Sets and functions, topological ideas, LUB property, real sequences, continuity, mean value theorems, integration, definite integrals, Taylor's theorems, improper integrals, convergence of infinite series, power series, improper integrals with parameter. (Even years only.)

Mathematics 471. Differential Equations. **(S)(3)**
Differential equations of first order and first degree, differential equations of first order and higher degree, differential operators and linear differential equations, reduction of order. *Prerequisite:* Mathematics 242. (Even years only.)

Mathematics 495. Independent Study. **(F,S)(3)**
Independent work on topics selected to meet the student's needs. For Mathematics majors only.

COMPUTER SCIENCE

Requirements for a Minor: Twenty-one semester hours consisting of Mathematics 241, Computer Information Systems 221, 231, 250, 310, 315 and an additional Computer Information Systems course numbered 200 or above. Course descriptions are listed under Computer Information Systems.

PHYSICS

Requirements for a Major: Thirty semester hours consisting of physics courses numbered 211 and above including Physics 211, 212, 213, and 214. Science cognates consist of Chemistry 111, 112, 131, 132, and General Science 471.

Requirements for a Minor: Twenty-one semester hours of physics courses numbered 211 and above, including Physics 211, 212, 213, and 214.

Physics 101. Survey of Physics. **(F)(3)**
A descriptive introduction to physics covering some of the ideas of modern physics. Scientific theories, speed of light, energy, wave motion, heat engines, electromagnetic spectrum, nuclear energy, beyond the solar system.

Physics 103. Survey of Physics Laboratory. **(F)(1)**
Experiments and activities that illustrate basic principles of physics and develop laboratory skills. Experiments are coordinated with Physics 101.

Physics 111-112. Elements of General Physics. **(F,S)(**
This course is intended for life science and non-science students. Mechanics of motion and equ librium; properties of solids, liquids and gases; thermal phenomena; wave motion and vibration electricity and magnetism, optics; topics in modern physics. Does not count toward minor. *Prere uisite:* High school Algebra or permission of the instructor.

Physics 113-114. Elements of General Physics Laboratory. **(F,S)(1-**
Laboratory experiments in mechanics, heat, sound, electricity, and magnetism that illustrate bas principles and develop laboratory skills.

Physics 211-212. General Physics. **(F,S)(**
Mechanics of solids, liquids and gases; laws of thermodynamics; kinetic-molecular theory, vibrati bodies; wave physics; laws of Coulomb, Faraday, Ampere, Ohm, Joule, and Lenz; electromagnetisr optics; photoelectric and Compton effects; nuclear energy; relativistic effects. *Prerequisite:* Math matics 241.

Physics 213-214. General Physics Laboratory. **(F,S)(**
A general physics laboratory course involving experiments in mechanics, heat, sound, electricit magnetism, optics and modern physics. Experiments are coordinated with Physics 211-212.

Physics 301. Principles of Modern Physics. **(F)(**
Special relativity, elementary concepts of quantum mechanics, selected topics in atomic and nucle physics. *Prerequisite:* Physics 212 and Mathematics 242.

Physics 310. Statics. **(S)(**
Study of force systems on bodies at rest. Applications of conditions of equilibrium to coplanar ar space systems. Virtual work, centroids, moments of inertia, and products of inertia. *Prerequisit* Physics 211.

Physics 311. Heat and Thermodynamics. **(F)(**
Thermodynamic systems and processes, equations of state, PVT surfaces of real substances, lav of thermodynamics, energy equations, enthalpy, entropy, and thermodynamic potentials, applicatio of thermodynamics to simple systems, kinetic theory. *Prerequisites:* Physics 212, and Mathemati 242.

Physics 312. Electricity and Magnetism. **(on demand)(**
Electric charges, forces, field and potential with associate magnetic forces and fields; dielectr theory; capacitance, inductance, resonance, oscillations; series, parallel DC and AC circuits; mea uring instruments; Maxwell's equations and electromagnetic waves. *Prerequisite:* Physics 212.

Physics 411. Dynamics. **(on demand)(**
Motion of a particle, systems of particles, rigid bodies; moving coordinate systems; Lagrange equations; small oscillations. *Prerequisites:* Physics 212 and Mathematics 242.

Physics 412. Physical Optics. **(on demand)(**
Wave propagation and superposition; interference, diffraction, absorption, dispersion, polarizatio double refraction, interaction of radiation with matter, laser theory; theory of selected optical instr ments. *Prerequisite:* Physics 212.

Physics 495. Independent Study. **(F,S)(**

COAL MINING TECHNOLOGY

Union College offers 3 programs in Coal Technology.

I. Associate of Applied Science (AAS) - a 2-year program

II. A minor in Coal Mining Technology

III. A major in Mining Management - a 4-year program

The Coal Mining Technology Program is designed to provide the technical skills and knowledge th will qualify students for jobs or enable them to advance their careers in coal mining and relate industries.

The Coal Mining Technology curriculum was developed in part by an advisory board of minir industry representatives. Their input ensures that the Union College Coal Mining Technology Progra meets the needs of the coal industry and that students who graduate from the program will have th training they need for jobs in the coal industry.

I. Requirements for the 2-year AAS degree.

A. Common courses required of all candidates

			Semester hours
COAL	111	Introduction to Coal Mining	3
COAL	112	First Aid and Safety	3
COAL	121	Mining Law	3
ENVS	113	Geology of Coal	3
MATH	125	Graphics Analysis	3
MATH	232	Surveying	3
COAL	220	Mining Economics	3
COAL	235	Coal and Water Analysis	3
COAL	246	Dust, Noise and Illumination	3
BUAD	352	Principles of Management	3
ENGL	111	Freshman Composition	3
ENGL	112	Freshman Composition	3
MATH		Math Elective, Intermediate	3
		Humanities Elective	3
		Social Science Elective	3
			45

B. Emphasis Courses

Underground Mining - 15 hours or **Surface Mining -** 15 hours

Required:

COAL	240	Fundamentals of Roof Control	3
COAL	241	Mine Gases & Ventilation	3
COAL	245	Underground Mining Methods	3

Required:

COAL	242	Surface Mining Methods	3
COAL	243	Explosives & Blasting	3
ENVS	244	Reclamation & Land Use	3

Electives:

COAL	248	Coal Preparation	3
COAL	232	Mine Electricity	3
COAL	258	Field Experience*	3

C. Free Electives - 6 hours

Grand Total - 66 hours

xperienced students may substitute other courses from the Emphasis List.

II. Requirements for a Minor in Coal Mining Technology: Union College also offers a minor in Coal Mining Technology as part of a four-year Bachelor of Science degree program. It enables students in business, science, the health professions, and other fields to take courses that will complement their chosen professions and better prepare them for careers in the coal industry or in allied fields.

Requirements consist of twenty-one semester hours in Coal Mining Technology, including Coal Technology 111, 112, or 121, and Mathematics 125. The remaining nine semester hours should be selected in consultation with the student's advisor so as to meet his or her career goals.

III. Requirements for the mining management major.

A. Completion of the requirements for the AAS in Coal Technology

B. Completion of the general studies requirements

C. Completion of the following 30 hours major:

COAL 220	Mining Economics	BUAD 311 or 312	Business Law
COMP	A computer language	BUAD 321	Principles of Marketing
ECON 251	Environmental Economics	or	
ACTG 271	Principles of Accounting	BUAD 351	Principles of Finance
ACTG 272	Principles of Accounting	BUAD 352	Principles of Management
OFAD 302	Business Communications	BUAD 372	Personal Management

Coal Technology 111. Introduction to Coal Mining. **(F)(3)**
Principles and practices of surface and underground mining methods, equipment, field trips, miner responsibilities, safety practices. (Part I of training for inexperienced miners — surface and under ground.)

Coal Technology 112. First Aid and Safety. **(F)(3)**
Instruction in MSHA approved first-aid procedures for all types of accidents, CPR training, and principles of accident prevention. (Part II of training for inexperienced miners — surface and un derground.)

Coal Technology 121. Mining Law. **(S)(3)**
A study of underground and surface mining laws and their relationship to mine management and operation. MSHA Health & Safety Regulation.

Coal Technology 220. Mine Economics. **(S)(3)**
Introduction to the operational cost of mining (surface and underground) in the following areas Engineering, equipment, taxes, fees, royalties, transportation, office management, MSHA, OSM preparation plant, and coal market.

Coal Technology 232. Mine Electricity. **(F)(3)**
D.C. and A.C. theory and applications, motors, transformers, power equipment, circuits, and circui protections, control circuits, diagrams and equipment trouble shooting, and basic solid state. *Pre requisites:* Mathematics 108 or permission of instructor.

Coal Technology 235. Coal and Water Analysis. **(S)(3)**
A study of the chemical properties of coal and water, and an introduction to analytical principles sampling methods, and statistical treatment of data used in coal and water laboratories. *Prerequisite* Mathematics 108 or consent of instructor.

Coal Technology 240. Fundamentals of Roof Control. **(F)(3)**
A study of stress factors on roofs, types of roof bolts, machinery, types of mine roofs, testing and controlling roofs, and roof control plans.

Coal Technology 241. Mine Gases and Ventilation. **(F)(3)**
Mine Gases: Physical and chemical properties of mine gases, effect on miners, gas detection devices and safety procedures. Ventilation: Methods, ventilation devices, required air movement, ventilation plans, and effect on mine gases.

Coal Technology 242. Surface Mining Methods. **(F)(3)**
A study of the principles and practices of surface mining. Topics: Surface mining methods, matching method of topography, equipment, and mining regulations.

Coal Technology 243. Explosives and Blasting. **(F)(3)**
Methods of using explosives and the latest techniques in blasting for both surface and underground Safety and economy will be emphasized. *Prerequisite:* Mathematics 100 or equivalent, or consent of instructor.

Coal Technology 245. Underground Mining Methods. **(S)(3)**
A detailed study of the methods of underground mining: matching equipment to mining situations mine designs for safety and efficiency, coal seams — locations and physical and chemical properties new technology. *Prerequisite:* Coal Technology 240 or 241.

Coal Technology 246. Dust, Noise, and Illumination. **(S)(3)**
A study of dust, noise,and illumination problems in a mining situation. The following will be discussed under each category: history of regulations, reasons for health standards, physical properties, in struments and methods of use.

oal Technology 248. Coal Preparation. **(F)(3)**
A study of the various aspects and methods of coal preparation including sampling, washing, crushing, the science of separation processes such as dense-media and froth flotation, refuse removal and disposal.

oal Technology 285. Field Experience in Coal Technology. **(F,S,Sum)(3)**
A directed field experience in some phases of coal mining with consideration given to the needs and interests of the student. Students with prior experience may elect to substitute 2 Coal Technology emphasis courses, with permission of the director. *Prerequisite:* Coal Technology 111 and 112 or equivalent and 15 hours credit.

DIVISION OF SOCIAL SCIENCES

Martha L. Cornwell, *Chairman*
Appalachian Studies and Appalachian Semester
Anthropology — Behavioral Sciences — Geography
History — Political Science — Pre-Law — Psychology
Sociology — Area in Social Studies Education

ANTHROPOLOGY

Anthropology 221. Introduction to Cultural Anthropology. **(S)(3**
A survey of the archaeological and biological history of mankind as it relates to the development c man and his culture, with comparisons drawn between the cultures of primitive people and Western Civilizations.

Anthropology 251. North American Indian Cultures. **(F)(3**
The historical development of North American Indian technology, and the cross-cultural study c four diverse Indian cultures at the time of White contact, will be the main focus of this course Economics, ecology, technology, role relations, medicine, politics and conflict will be the focus c study in each culture.

BEHAVIORAL SCIENCES

The two departmental courses listed below are "core" courses in the Behavioral Sciences curriculum both courses are required as a part of the Psychology and Sociology majors and minors.

Behavioral Science 245. Basic Statistics: Theory and Application. **(F,S)(3**
Basic concepts of descriptive and inferential statistics, illustrations of applications in the fields o sociology, psychology, business, education, and natural science. Should demonstrate a proficiency in basic mathematics and algebra as determined by grades in Mathematics 100 or on a placemen test.

Behavioral Science 341. Methods of Behavioral Science Research. **(S)(3**
Techniques and philosophies of behavioral science research including experimental, quasi-experimental, survey, evaluation, field, and unobtrusive designs for the collection and interpretation o information.

PSYCHOLOGY

Requirements for a Major: thirty semester hours, including Behavioral Sciences 245, 341, psychology 111, 210, 352, 361 and 460.

Requirements for a Minor: Twenty-one semester hours including behavioral Sciences 245, 341 Psychology 111, 210, and 361.

Psychology 111. Introduction to Psychology. **(F,S)(3)**
Emphasis on the study of human behavior and the ability of the individual to make adjustments to his environment.

Psychology 201. Psychology of Personal Adjustment. **(on demand)(3)**
Factors determining the development of personality, principles of mental health, and problems involved in the dynamics of human adjustment.

Psychology 210. Child Development. **(S)(3)**
Emphasis on recent child development theories with laboratory experiences with children on a one-to-one basis.

Psychology 330. Social Psychology. **(S)(3)**
Major emphasis is on problems involved in human relations. Designed to help the individual to understand and adjust to group thought and action. Attention is given to recent psychological and sociological research in human relations.

Psychology 352. Abnormal Psychology. **(S)(3)**
Mental disorder, changing conceptions of normality, the more common forms of mental disorders, their psychological interpretation, principles of effective mental hygiene, and contemporary approaches to psychotherapy.

Psychology 361. Psychology of Learning. **(F)(3)**
Basic concepts and principles of learning with emphasis upon human and animal laboratory studies.

Psychology 402. Counseling Theories and Techniques. **(F)(3)**
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing. Permission of the instructor required.

Psychology 460. Theories of Personality. **(F)(3)**
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological and stimulus-response theories included.

Psychology 461. History and Systems of Psychology. **(on demand)(3)**
Origins of psychological thought within science and philosophy, tracing the development of systems and theories within German, British, and American psychology.

Psychology 470. Theories of Learning. **(S)(3)**
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories.

Psychology 495. Independent Study. **(F,S,Sum)(1-3)**

SOCIOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Sociology 131, 460. Psychology 330 is strongly recommended and will be credited toward the thirty semester hour requirement.

Requirements for a Minor. Twenty-one semester hours, including Behavioral Sciences 245, 341, Sociology 131. Psychology 330 is strongly recommended and will be credited toward the twenty-one semester hour requirement.

Appalachian Semester courses having a sociology prefix may count toward both the major and minor.

Sociology 131. Introduction to Sociology. **(F,S)(3)**
The social interaction of persons and groups; man's cultural heritage and social nature; analysis and principles of group life; forms of collective behavior; the process of socialization; social structure, interaction and reorganization, including race relations and social class; a variety of social institutions; the family, education, religion; the economy and politics; social change.

Sociology 241. Sociology of Appalachia. **(S)(3)**
Uses the basic principles and concepts of sociology to study life in the Appalachian region. The areas of study includes socio-economic class, culture, folklore, social institutions, the family, religion, schooling, poverty, and development.

Sociology 251. Current Socio-Economic Problems **(F)(3)**
Scientific understanding of social problems; problem areas in contemporary American society; types of personal disorders and role impairment; the influences of social change on the structure of society. Attention is also given to the question of why certain forms of deviance become defined as social problems.

Sociology 255. Selected Topics in Political Sociology. **(on demand)(3)**
A series of seminars and small group discussions organized around a set of case readings in the area.

Sociology 271. Marriage and the Family. **(S)(3)**
Background experiences in the lives of young people leading up to courtship and marriage; the establishment and functioning of the home, with related biological and social factors. Emphasis upon changing attitudes toward family relationships, some of the problems involved and suggested solutions.

Sociology 311. Human Ecology **(S)(3)**
Population distribution, growth, composition, and its relevance to current economic, social, and political problems (Odd years only.)

Sociology 353. Minority Groups. **(on demand)(3)**
A social scientific study of the origin and organization of minorities and their effect on society, with particular emphasis on minorities in the United States.

Sociology 371. Social Institutions. **(F)(3)**
An examination of the structure and function of social institutions, with primary orientation within the American milieu. Particular emphasis on socialization, stratification, social change, and relations among institutions. (Odd years only.)

Sociology 421. Rural and Urban Sociology. **(F)(3**
Comparative and interrelated study of urban and rural life considering physical, institutional, socia and economic factors of modern life in cities and in the countryside.

Sociology 433. Social Change. **(F)(3**
This course introduces students to the problems of development and change. Examples will b drawn from Third World models of development, nationalism, imperialism, environmentalism, an human rights. The course is interdisciplinary, with emphasis on historical, economic, environmenta and sociological aspects.

Sociology 460. Sociological Theory. **(F)(3**
The major theories which have proved useful in investigating the nature of society are examined a cultural products, ideologies, and scientific models. Special attention is given to major figures suc as Comte, Durkheim, Weber, Merton, C. Wright Mills, White, and Sorokin in the emergence an convergence of their theoretical development. Lecture and discussion in a seminar setting.

Sociology 464. Sociology of Deviance and Criminology. **(S)(3**
This course will develop an understanding of the social definitions and implications of deviance Various types of deviant behavior and relevant theories of society will be addressed.

Sociology 495. Independent Study. **(on demand)(1-3**

PRE-LAW

Most law school admissions committees require a student to have a four-year college progra leading to the Bachelor of Arts or Bachelor of Science degree plus an acceptable score on the La School Admissions Test. Majors may be in any area although most students tend to take business o social science majors of some type. Students may also elect an individualized major (See Specia Programs Section) to prepare themselves for law school. Regardless of the major, elective hours i accounting, business, history political science, philosophy, and English prove helpful.

HISTORY

Requirements for a Major: Thirty hours of history including History 111, 112 and 300. At least 1 hours must be U.S. History and 12 hours must be non-U.S. History. Military Science 202 may b counted toward the U.S. history requirement.

Requirements for a Minor: 21 semester hours in history; including History 111 and 112. At leas 9 hours must be in U.S. History and 9 in non-U.S. History. Military Science 202 may be counted towar the U.S. history requirement.

History 111. World History to 1500. **(F,S)(3**
Survey of the institutions, culture, and thought of Western Civilization. The history of China offer an appreciation of a non-western tradition. The course ends at 1500, period of the first importan European contacts with the East.

History 112. World History since 1500. **(S)(3**
Survey of the world during the period of European expansion and colonial domination. Primar emphasis on the West and China.

History 201. United States History to 1865. **(F)(3**
A survey of America history through the Civil War, tracing the development of the American natio Stress is placed on the nature of colonial society; the American Revolution; the creation of a nationa government; the influence of Jackson, and the Civil War.

History 202. United States History since 1865. **(S)(3**
A survey of American history to present times tracing the rise of America as a world power. Emphasi is on the changes of industrialization; the loss of civil rights; protest and reform; the Depressio and American influence in the world.

History 233. History of Appalachia. **(Sum,F)(3**
A survey of the region from settlement to the present time. The course focuses especially on th impact of the frontier experience, the Civil War and industrialization. "How is Appalachia both simila to and different from the rest of America?" is a major question addressed by the course.

History 241. American Economic History. **(S)(3**
Examination of the economic forces shaping the development of the American Nation. Topica consideration of mercantilism; the rise of capitalism; slavery; the shocks of industrialization; the Ne Deal; and criticism of American economic power and capitalism. (Even years only).

History 300. Historical Research and Methods. **(F)(3)**
Gathering and criticism of data; bibliographies and aids; problems in historiography, composition analysis, and the final monograph.

History 311. United States Colonial and Revolutionary Eras (1600-1815). **(F)(3)**
An examination of the conflicting historical interpretations of these eras. Topics emphasized will be Puritanism; Colonial society; reasons for the Revolution; the meaning of the constitution; and the nation's early problems (Odd years only.)

History 312. Jacksonian Era & the Civil War (1815-1865). **(S)(3)**
Emphasis on the conflicting historical interpretations of Jacksonian America and the Civil War. Topics include the Second Political Party System; slavery; expansion; and the causes of the Civil War. (Odd years only.)

History 313. Industrial America (1865-1919). **(F)(3)**
A consideration of the conflicting historical interpretations of the period. Topics emphasized include the loss of Civil Rights; the nature of the Gilded Age; Populist and Progressive Reforms; and World War I. (Even years only.)

History 323. Latin America. **(on demand)(3)**
A survey of Latin American history from the discoveries by Columbus to the present with the major emphasis on Mexico and the Caribbean.

History 330. Renaissance and Reformation: Europe (1350-1648). **(F)(3)**
An examination of historical transition from feudalism to primitive capitalism, from political localism to national monarchy, from religious life to secular life. (Even years only.)

History 331. Early Modern Europe (1648-1815). **(S)(3)**
A theoretical and historical appreciation of the birth, development and implications of the following institutions: mercantilism and merchant capitalism, the birth of the nation-state, the emergence of political democracy, European global expansion and early industrial society. (Even years only.)

History 332. Modern Europe. **(S)(3)**
Emphasis on the dual revolutions in Europe, industrial and political, and European and global implications: nationalism, socialism, liberalism, and communism.

History 342. History of Britain. **(F)(3)**
British history from the end of the War of the Roses until 1918. Emphasis on the religious, political, and economic development of Britain, the rise and decline of the British Empire, and British intellectual trends.

History 345. American Constitutional History: Civil and Political Rights. **(F)(3)**
An examination of the influence of the Superme Court with primary stress given to political and civil rights. Major consideration is the modern and Warren Supreme Court. (Even years only.)

History 421. The Middle Period (1821-1850). **(F)(3)**
A detailed examination of Jackson, politics, and the culture of the period. Stress is placed on reform and the predominance of change in American life, and conflicting interpretations of the period. (Even years only.)

History 446. History of Russia. **(F)(3)**
Russian History since 1689. Emphasis on the relation of economic development and social class to royal absolutism, bureaucratic absolutism and the emergence and development of the Soviet State. (Odd years only.)

History 470. Twentieth Century America. **(S)(3)**
Selected topics on the nation's history since 1900, including the New Deal, Viet Nam, and Watergate. (Odd years only.)

History 495. Independent Study. **(F,S,Sum)(3)**

POLITICAL SCIENCE

Political Science 101. American National Government. **(F)(3)**
A survey of the principal characteristics of the American National Government; examination of constitutional principles, federalism, political participation, institutions of government, and the politics of public policy.

Politic Science 231. International Politics. **(F)(3)**
Basic historical, economic, and cultural factors in the international political system. The rise and development of Western nation-state systems; the foundations of national power; sovereignty, nationalism and imperialism; the development of international organizations and cooperation.

Psychology 361. Psychology of Learning. **(F)(3)**
Basic concepts and principles of learning with emphasis upon human and animal laboratory studies.

Psychology 402. Counseling Theories and Techniques. **(F)(3)**
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing. Permission of the instructor required.

Psychology 460. Theories of Personality. **(F)(3)**
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological and stimulus-response theories included.

Psychology 461. History and Systems of Psychology. **(on demand)(3)**
Origins of psychological thought within science and philosophy, tracing the development of systems and theories within German, British, and American psychology.

Psychology 470. Theories of Learning. **(S)(3)**
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories.

Psychology 495. Independent Study. **(F,S,Sum)(1-3)**

SOCIOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Sociology 131, 460. Psychology 330 is strongly recommended and will be credited toward the thirty semester hour requirement.

Requirements for a Minor: Twenty-one semester hours, including Behavioral Sciences 245, 341, Sociology 131. Psychology 330 is strongly recommended and will be credited toward the twenty-one semester hour requirement.

Appalachian Semester courses having a sociology prefix may count toward both the major and minor.

Sociology 131. Introduction to Sociology. **(F,S)(3)**
The social interaction of persons and groups; man's cultural heritage and social nature; analysis and principles of group life; forms of collective behavior; the process of socialization; social structure, interaction and reorganization, including race relations and social class; a variety of social institutions; the family, education, religion; the economy and politics; social change.

Sociology 241. Sociology of Appalachia. **(S)(3)**
Uses the basic principles and concepts of sociology to study life in the Appalachian region. The areas of study includes socio-economic class, culture, folklore, social institutions, the family, religion, schooling, poverty, and development.

Sociology 251. Current Socio-Economic Problems. **(F)(3)**
Scientific understanding of social problems; problem areas in contemporary American society; types of personal disorders and role impairment; the influences of social change on the structure of society. Attention is also given to the question of why certain forms of deviance become defined as social problems.

Sociology 255. Selected Topics in Political Sociology. **(on demand)(3)**
A series of seminars and small group discussions organized around a set of case readings in the area.

Sociology 271. Marriage and the Family. **(S)(3)**
Background experiences in the lives of young people leading up to courtship and marriage; the establishment and functioning of the home, with related biological and social factors. Emphasis upon changing attitudes toward family relationships, some of the problems involved and suggested solutions.

Sociology 311. Human Ecology. **(S)(3)**
Population distribution, growth, composition, and its relevance to current economic, social, and political problems. (Even years only.)

Sociology 353. Minority Groups. **(F)(3)**
A social scientific study of the origin and organization of minorities and their effect on society, with particular emphasis on minorities in the United States.

Sociology 371. Social Institutions. **(F)(3)**
An examination of the structure and function of social institutions, with primary orientation within the American milieu. Particular emphasis on socialization, stratification, social change, and relations among institutions. (Odd years only.)

Sociology 387. Field Practicum in Sociology. **(S)(3)**
The field practicum in sociology is designed to give social science majors practical experience in a professional field related to sociology. Field placements will include such diverse experiences as working in the county court clerk's office, pre-trial services, social services and other programs. *Prerequisites:* Behavioral Science 245, and either Anthropology 221, Psychology 111 or Sociology 131, and permission of the instructor.

Sociology 421. Rural and Urban Sociology. **(F)(3)**
Comparative and interrelated study of urban and rural life considering physical, institutional, social and economic factors of modern life in cities and in the countryside. (Even years only.)

Sociology 433. Social Change. **(F)(3)**
This course introduces students to the problems of development and change. Examples will be drawn from Third World models of development, nationalism, imperialism, environmentalism, and human rights. The course is interdisciplinary, with emphasis on historical, economic, environmental and sociological aspects. (Odd years only.)

Sociology 460. Sociological Theory. **(F)(3)**
The major theories which have proved useful in investigating the nature of society are examined as cultural products, ideologies, and scientific models. Special attention is given to major figures such as Comte, Durkheim, Weber, Merton, C. Wright Mills, White, and Sorokin in the emergence and convergence of their theoretical development. Lecture and discussion in a seminar setting.

Sociology 464. Sociology of Deviance and Criminology. **(S)(3)**
This course will develop an understanding of the social definitions and implications of deviance. Various types of deviant behavior and relevant theories of society will be addressed. (Even years only.)

Sociology 495. Independent Study. **(on demand)(1-3)**

PRE-LAW

Most law school admissions committees require a student to have a four-year college program leading to the Bachelor of Arts or Bachelor of Science degree plus an acceptable score on the Law School Admissions Test. Majors may be in any area although most students tend to take business or social science majors of some type. Regardless of the major, elective hours in accounting, business, history, political science, philosophy, and English prove helpful.

HISTORY

Requirements for a Major: Thirty semester hours of history including History 111, 112 and 300. At least 12 hours must be U.S. History and 12 hours must be non-U.S. History. Military Science 202 may be counted toward the U.S. history requirement.

Requirements for a Minor: Twenty-one semester hours in history; including History 111 and 112. At least 9 hours must be in U.S. History and 9 in non-U.S. History. Military Science 202 may be counted toward the U.S. history requirement.

History 111. World History to 1500. **(F,S)(3)**
Survey of the institutions, culture, and thought of major world civilizations to 1500. The course will focus primarily on Western civilization, with some attention given to the development of China, India, the Americas, and Africa.

History 112. World History since 1500. **(S)(3)**
Survey of world history during the period of European expansion and colonial domination.

History 201. United States History to 1865. **(F)(3)**
A survey of American history through the Civil War, tracing the development of the American nation. Stress is placed on the nature of colonial society; the American Revolution; the creation of a national government; the influence of Jackson, and the Civil War.

CAMPUS INFORMATION

Location, Campus and Buildings

Union College is located in Barbourville, a residential town of 3,500, on U.S. highway 25E midway between Lexington,Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. Cumberland Gap National Historical Park is thirty miles away. The Doctor Thomas Walker State Shrine is four miles from the campus and in adjoining counties are Cumberland Falls State Park, Levi Jackson State Park, and Pine Mountain State Park.

On one of the most picturesque campuses of the South, Union College is proud of its Georgian buildings. Shaded by overhanging elms, the red brick buildings give the campus a majestic charm of dignity and beauty.

Speed Hall, (Administration Building), 1897-1905. A gift from the estate of Mrs. Fanny Speed of Louisville, KY. Her bequest also partially financed Centennial Hall and Stevenson Hall.

Centennial Hall, (formerly the Classroom Building), 1907.

Stevenson Hall, Men's Dormitory, 1907; wings added 1957.

Dramatic Arts Center, (formerly Soldiers' and Sailors' Memorial Gymnasium), 1919, remodeled 1965.

Baldwin Place, the home of the President, 1925. The gift of Mr. and Mrs. F.E. Baldwin, Elmira, N.Y.

Maintenance Building, 1938, originally equipped by a gift from the estate of Robert Norton, New Albany, Indiana.

Abigail E. Weeks Memorial Library, 1941, originally furnished by a gift from Mrs. Abbie E. Stewart.

Pfeiffer Hall, Women's Dormitory, 1942; wing added 1960. The original wing was a gift from the estate of Mr. and Mrs. Henry Pfeiffer, of New York City.

Conway Boatman Chapel and Fine Arts Building, 1949.

College Courts, residences for married students, 1954; expanded in 1964.

College Park Drive, 1960, faculty residential area.

Langford Apartments, 1962. Gifts from the estates of Miss Mary Kyle Dugan and Mrs. Mary Gilbert Langford in memory of Mr. and Mrs George Langford. Housing for faculty and staf

Religious Life Center, 1975.

Physical Education Building, 1964, includ ing the Swimming Pool, 1957.

Student Center, 1964.

Mahlon Miller Science Center, 1973.

Publications

Union College Bulletin — An official quart erly bulletin, one issue of which is the catalo number. The bulletin is sent free on request.

Parent's Bulletin — A publication to inform parents of activities on campus.

Union Express — A newspaper published by the student body.

Union College Alumus — A bulletin published by the Alumni office.

Stespean — The yearbook, published annually by the students of the college.

Union and You — A publication that combines the official calendar and institutional policies.

Pfeiffer Perspective — A handbook for residents of Pfeiffer Hall.

Stevenson Scenario — A handbook for residents of Stevenson Hall.

Student Organizations

Students have the opportunity of participating in and developing leadership through a number of campus organizations. Some of these are departmental, some are limited to honor students in their fields, many are open to all interested students. Each has a faculty sponsor and some include faculty in their membership. The following are official clubs and organizations as approved by the faculty of Union College.

Alpha Psi Omega — A national honorary theatre fraternity. Union's Zeta Chi chapter serves to encourage participation in the college's theatrical activities and to develop larger and better informed theatre audiences.

Appalachian Wilderness Club — A group to explore the outdoors through hiking, camping, and caving.

Fellowship of Christian Athletes — An organization designed to promote athletic involvement and spiritual growth.

Gamma Beti Phi — A national honor society promoting scholarship, leadership, and good citizenship at Union College.

Iota Sigma Nu — An honor society to provide recognition for honor students by uniting them in an organization which encourages high ideals, promotes diligence in study, and rewards excellence in scholarship.

Modern Culture Study Group — A group whose purpose is to study modern culture with an emphasis on the dramatic arts, through group discussion, films, readings, and lectures.

Oxford Club — An organization to provide a fellowship of service and study for Christian students of Union College, and to provide opportunities for those students to put their faith into action.

The Paw Pack — An organization to encourage school spirit; increase campus participation in Union athletic events; and create a spirit of unity among students, faculty, administration and staff.

Phi Beta Lambda — A national business organization promoting scholastic achievement, service to the community, development of leadership potential,social interaction, and increased awareness of the business world.

Campus Activities — A board to plan programs for social and recreational activities to supplement those planned by other campus agencies.

Student National Education Association — A national pre-professional organization for men and women planning to pursue teaching as a career.

Union College Science Society — An organization to stimulate interest in the natural sciences.

Union College Service Organization — An organization sponsored by Campus Ministry and supported by The Fellheimer Trust, which encourages and coordinates volunteer service on the campus and in the surrounding communities by students, faculty and staff.

BLTN (Better Later Than Never) — An organization seeking to provide information, social outlets, counseling, and emotional support for non-traditional students (those who have experienced a gap between their secondary education and college or an interruption in their college careers).

BBUCL (Book Busters of Union College Library) — An organization seeking to encourage greater use of the Union College Library.

Association for Cultural Enhancement — An organization seeking to promote cooperation, fellowship and solidarity among student groups with a special concern for the needs of minority students on the Union Campus.

Athletics

Union College is a member of the Kentucky Intercollegiate Athletic Conference (KIAC), the Mid-States Football Conference (MSFC), and the National Association of Intercollegiate Athletics (NAIA). The college promotes athletics for physical development and as a vital part of the program of extra-curricular activities. The program emphasizes the protection of the best interests of the student athlete. Union teams are noted for "clean" sport and competitive spirit. Sport for fun and character building is fundamental. In intercollegiate competition for men, the College is represented by varsity teams in football, basketball, swimming, tennis and baseball.

Women may participate on intercollegiate teams in swimming and tennis, and have earned placed on varsity teams in theses sports in recent years. Separate women's teams are active in basketball and softball and compete against women's teams from other colleges and universities in the area.

Union College sponsors intramural activities in touch football, basketball, free-throwing, badminton, softball, tennis and volleyball to have a "sports for all" program. The intramural organization is, in general, made-up of men's and women's independent teams. The program includes both team and individual sports. No college credit is given for intramurals, but everyone is urged to take part.

Student Conduct

Each student is expected to conduct himself at all times according to the rules of good society. This obligation includes compliance with Federal, State and local laws and adherence to college regulations. As members of a free society, students are always free to peacefully and lawfully petition for amendment or modification of the various laws as well as the college regulations. However, the rights of the student body as a whole and the College as an institution of higher education supersede the rights of any individual student or any group of students. Accordingly, not in an attempt to stifle dissent, but rather to perpetuate an environment where the student may peacefully pursue his studies, actions which are disruptive to the normal functions

and operations of the College will not be tolerated. Students who are disorderly in conduct, or unmindful of the rights of others, may be required to withdraw from the College.

No student shall possess or use alcoholic beverages when on college property or when away from the campus representing the College in any way; i.e., as a participant or spectator at a College athletic event or other college function. Any student violating this regulation may be required to withdraw from the College.

Union College students are obliged to show discretion, good judgment, and strong respect for Christian principle in all interpersonal relationships.

The sale, possession, or use of drugs or substances in violation of the Federal, State, or local laws is prohibited. Any student who illegally sells, possesses, or uses such drugs will be subject to criminal prosecution by the appropriate law enforcement agencies and also may be suspended or expelled. It is the announced policy of Union College to cooperate fully with the various law enforcement officials in the enforcement of the drug laws as with all other laws. A student's lawful use and possession of certain drugs prescribed by a qualified medical practitioner such as a physician, dentist, or optometrist is, of course, permitted.

Firearms and explosives of any kind are forbidden in the residence halls or on the campus. Students may be expelled for failure to abide by this rule.

Gambling in any form is strictly forbidden.

Union College expects good housekeeping from all on-campus resident students. Residents who fail to keep their rooms in satisfactory condition will have their housing contract revoked. The College reserves the right to enter and inspect the rooms of students at any time.

The Student Code defining procedures for dealing with academic dishonesty can be obtained in the office of the Vice President for Academic Affair.

Social Life

Students are encouraged to accept every legitimate opportunity to engage in social functions. The faculty emphasizes the value of well-directed social activities. Student organizations, the faculty, and local churches make desirable contributions to the promotion of social life. The Dean of Students is responsible for the initiation and direction of a comprehensive program of student social and recreational activities. All social functions are subject to the rules and regulations of the college.

Automobiles

Automobiles parked on campus must be registered in the Business Office. All must display a legible parking permit sticker. The annual registration fee is $5.00. Stickers should be displayed in the rear window of the car on the driver's side. Cars should be parked in the assigned lots as designated by the Business Office. Violation of parking regulations may result in vehicles being ticketed or towed away at owner's expense. Parking for the handicapped is provided.

Health Service

Union college students receive health service and advice from the County Health Office in Barbourville. Since the College does not have facilities for taking care of protracted illness, arrangements for hospitalization must be made by the student or his parents. When a physician is needed, the student may request the dormitory counselor to call one, whose fee is paid by the student. In case of emergency, the College reserves the right to employ a physician or to have a student hospitalized without consent of the parents. All full-time students are encouraged to secure coverage of an accident, sickness, and hospitalization plan if adequate insurance is not available through a family plan at home. All claims under student insurance plans are filed by the student and the attending physician and not by Union College.

The college does require that a students health service record be completed by a physician and placed on file with the College.

Campus Housing

Stevenson Hall for men and Pfeiffer Hall for women permit single or double room occupancy. Twenty apartments are available for married students. All residents of Stevenson Hall, Pfeiffer Hall, and College Courts are required to sign housing contracts.

Students are expected to obey the terms of their housing contract. A copy of this contract can be obtained in the office of the Dean of Students.

The residence halls are closed during vacation periods as specified in the academic calendar. Students will not be allowed to remain in the residence halls during vacation. Students will be required to turn in their keys during these stated vacation periods. Anyone failing to do so will be charged a lost key fee. The Dean of Students assists students who must remain in Barbourville for full-time work-study or student teaching in finding suitable housing.

No student will be issued a room key, hallway, or outside door key unless he or she has previously signed a housing contract. Keys must be returned by the last day of the terms of this agreement or the student's use of the accommodations, whichever occurs' first. Any student failing to return a room key and/or apartment key will be charged a ten dollar ($10.00) fee. A twenty-five dollar ($25.00) fee will be charged for loss of hallway or outside door key to cover the cost of changing the lock for the security of persons subsequently permitted the use of the accommodations.

All students twenty-one years or older, juniors or seniors, according to the Registrar's Office records, veterans, and married students are eligible to live off campus. Juniors and seniors under age twenty-one must have parental permission.

Religious Life

Union College takes seriously its identity as a church-related institution and is concerned that its students be made aware of the value of vital faith as well as academic excellence. We seek to be faithful to John Wesley's affirmation that a whole person is one who unites knowledge with vital piety.

Chapel worship services are held on campus twice weekly, are ecumenical in nature, and utilize the gifts and graces of the campus minister, other clergy, faculty, and students. Students are given many opportunities to participate in vesper services, prayer groups, Bible studies, and other informal discussion groups and are given ample opportunity and encouragement to grow in their understanding of the Christian faith. Celebrations of the Lord's Supper are held frequently. The Religious Life Center, in the heart of the campus, provides a setting for informal worship, study, discussion, and fellowship.

The campus minister and other community clergy are available for personal Christian counseling.

The Willson-Gross Lectures and the Staley Distinguished Christian Scholar Lectures seek to bring outstanding speakers to the campus to discuss and provide information about the Christian faith. The Religious Life Committee, composed of students, faculty, and local clergy, works with the campus minister as an advisory group to ensure that religious life programs are appropriate to the needs of the students and the campus community.

Students are encouraged to worship regularly in the church of their choice and to participate in the various denominational and faith-oriented groups on campus and in the community.

ACADEMIC CALENDAR 1987-88

Summer, 1987 - First Session

May 31, Sunday	Residence Halls open for new students at 1:00 p.m. First meal at 4:30 p.m.
June 1, Monday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Classes begin on regular schedule.
June 3, Wednesday	Last day for schedule changes. Last day to register for first summer session.
June 17, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 27, Saturday	NTE Core Battery; 8:00 a.m.
June 29, Monday	Orientation and Advance Registration for fall semester for new students.
July 2, Thursday	Final examinations for first summer session. Advance Registration for second summer session.
July 3, Friday	Holiday.

Summer, 1987 - Second Session

July 6, Monday	Advising and Registration. Late fee after this date. Classes begin on regular schedule.
July 10, Friday	Last day for schedule changes. Last day to register for second summer session.
July 11, Saturday	NTE - Specialty Area; 8:00 a.m.
July 22, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
August 3, Monday	Orientation and Advance Registration for fall semester for new students.
August 7, Friday	Final Examinations for second summer session.
August 8, Saturday	Last meal at noon. Residence halls close at 4:00 p.m.

Fall Semester, 1987

August 26, Wednesday	Last day to finalize advance registration for fall semester. Meeting for new faculty members; 10:00 a.m.
August 27, Thursday	Faculty meeting/workshop 9:00 a.m. - 4:00 p.m.
August 28, Friday	All-faculty, pre-registration advisement session; 9:00 a.m. Divisions meet at 1:30 p.m.
August 30, Sunday	Residence halls open at 8:00 a.m. First meal at noon.
August 31, Monday	Advising for upperclassmen and freshmen having completed Placement Tests and Summer Orientation; 9:00 a.m. Students who have not completed Placement Tests and/or summer Orientation follow schedule below: Placement Tests — 12:30 p.m. Fall Orientation — 3:00 p.m. Graduate Registration — 2:00-6:30 p.m.
September 1, Tuesday	Registration for Fall Semester. Late fee after this date.
September 2, Wednesday	Classes begin.
September 7, Monday	Labor Day, no classes

September 7 - 11	Constitutes the first week for refund purposes.
September 10, Thursday	Last day for schedule changes. Last day to register for fall semester.
October 21 - 22	Mid-semester Examinations (classes meet on regular schedule)
October 23 -25	Mid-semester weekend; no classes. Residence halls remain open; food service available.
October 26, Monday	Classes resume.
October 26 - 30	Counseling sessions with advisors. Classes meet on regular schedule.
November 18, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
November 24, Tuesday	Last meal served at 4:30 p.m.
November 25, Wednesday	Residence halls close at 10:00 a.m.
November 25 - 29	Thanksgiving vacation; no classes.
November 29, Sunday	Residence halls re-open at 1:00 p.m. First meal at 4:30 p.m.
November 30, Monday	Classes resume. Advising and Advance Registration for spring semester.
December 12, Saturday	Final Examinations for Saturday classes.
December 14, Monday	Reading Day; no classes (preparation for final exams).
December 15, 16 & 17	Final Examinations
December 18, Friday	Last day to finalize advance registration for spring semester. Final grades for fall semester are due. Last meal at noon. Residence halls close at 4:00 p.m.

Spring Semester, 1988

January 3, Sunday	Residence halls open at 1:00 p.m. First meal at 4:30 p.m.
January 4, Monday	Academic Advising. Counseling and Orientation for new students.
January 5, Tuesday	Registration for spring semester. Late fee after this date.
January 6, Wednesday	Classes begin.
January 11 - 15	Constitutes the first week for refund purposes.
January 13, Wednesday	Last day for schedule changes. Last day to register for spring semester. Last day to apply for graduation.
March 2 - 3	Mid-semester Examinations (classes meet on regular schedule)
March 4, Friday	Spring vacation begins; no classes. Last meal at noon. Residence halls close at 4:00 p.m.
March 13, Sunday	Residence halls re-open at 1:00 p.m. First meal at 4:30 p.m.
March 14, Monday	Classes resume.
March 14 - 18	Counseling sessions with advisors. Classes meet on regular schedule.
April 1, Friday	Easter vacation; no classes. Residence halls remain open; food service available.
April 4, Monday	Classes resume.
April 6, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
April 7, Thursday	Honors convocation.
April 21, Thursday	Advising and Advance Registration for May Interim, Summer Sessions and Fall Semester.
April 30, Saturday	Placement tests for new summer session students.
May 2, Monday	Last day to finalize advance registration for May Interim. Reading Day; no classes (preparation for final exams).
May 3, 4, & 5	Final Examinations.
May 6, Friday	Final grades for spring semester are due.
May 7, Saturday	Commencement; 10:30 a.m., Conway Boatman Chapel.

May Interim, 1988

May 9, Monday	Registration for May Interim. Classes begin according to schedule.
May 10, Tuesday	Last day to register for May Interim. Last day for schedule changes.
May 13, Friday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
May 23, Monday	Last day to finalize advance registration for first summer session.
May 27, Friday	Final Examinations.

Summer, 1988 - First Session

May 29, Sunday	Residence halls open for new students at 1:00 p.m. First meal at 4:30 p.m.
May 30, Monday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Classes begin on regular schedule.
June 1, Wednesday	Last day for schedule changes. Last day to register for first summer session.
June 5, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 25, Saturday	Orientation and Advance Registration for fall semester for new students.
July 1, Friday	Final Examinations for first summer session. Advance registration for second summer session.

Summer, 1988 - Second Session

July 4, Monday	Holiday.
July 5, Tuesday	Advising and Registration. Late fee after this date. Classes begin on regular schedule.
July 7, Thursday	Last day for schedule changes. Last day to register for second summer session.
July 20, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
August 1, Monday	Orientation and Advance Registration for fall semester for new students.
August 5, Friday	Final Examinations for second summer session.
August 6, Saturday	Last meal at noon Residence halls close at 4:00 p.m.

ADMINISTRATION AND STAFF

JACK C. PHILLIPS, *President of the College* — A.B., Birmingham Southern College; M.Div., Vanderbilt University; LL.D., Union College.

MAHLON A. MILLER, *President Emeritus* — B.S., University of Pittsburgh; M.Div., S.T.M., Drew Theological Seminary; Case Institute of Technology; Western Reserve University; Union Theological Seminary; Zurich University; Tuebingen University; D.D., Union College; L.L.D., Morehead State University.

Administrative Affairs

EDWARD H. BLACK, *Vice President for Administration; Affirmative Action Officer* — B.A., M.A. in Education Union College.

GEORGE T. BLACK, *Director of Data Processing* — B.S., Union College.

BRENDA F. WAGERS, *Computer Programmer* — B.S., Eastern Kentucky University.

LOUISE MARTIN, *Computer Operator, Data Entry Supervisor* — LaCrosse State Teachers College; Union College.

CURTIS PERKINS, *Superintendent of Buildings and Grounds.*

Academic Affairs

PAUL S. MOORE, *Acting Vice President for Academic Affairs* — A.B., Union College; M.S., University of Tennessee; Indiana University; University of Oregon; Ed.D., University of Alabama.

H. WARREN ROBBINS, *Dean of Graduate Academic Affairs* — B.S., Eastern Kentucky University; M.A., George Peabody College; Indiana University; University of Kentucky; Ed.D., University of Tennessee.

E. EDWIN LeMASTER, *Registrar* — B.S., Asbury College; B.D., Asbury Theological Seminary; M.A., Butler University.

C. EDWARD GIBSON, *Head Librarian* — A.B., Franklin and Marshall College; M.S.L.S., Drexel University; M.A., Loyola College.

TARA L. COOPER, *Assistant Librarian* — B.S., M.S., Eastern Kentucky University.

CARRIE C. STEPHENSON, *Assistant Librarian* — B.A, M.A., Brigham Young University.

FAYE FRANCE, *Circulation Supervisor in the Library* — Union College.

JANET TARRY, *Director of Special Programs* — B.A., University of Louisville; M.A., Murray State University.

JANE ROBBINS, *Assistant Director of Upward Bound* — B.S., M.A. in Education, Union College.

KRISTINE L. LLITERAS, *Upward Bound Tutor/Counselor* — B.A., Chadron State College.

KAY DAWN McFARLAND, *Director of Adult and Community Education* — B.M., Union College.

Student Affairs

FRANCES L. PATRIDGE, *Vice President for Student Affairs* — B.S., University of Arkansas; M.A., George Peabody College; University of Southern California; Indiana University; L.H.D., Union College.

JERRY L. CORNWELL, *Director of Admissions* — A.A., Monroe Community College; B.S., Union College.

PAUL A. DAMERON, *Admissions Counselor* — B.A., Campbellsville College; M.A. in Education, Western Kentucky University.

GLENNA B. ESTES, *Admissions Counselor* — B.A., Union College.

EDWARD de ROSSET, *Dean of Students and Director of the Student Center* — B.A., Berea College; M.A., Eastern Kentucky University.

FREDA NEW, *Administrative Assistant to the Dean of Students* — Union College.

MICHAEL R. McCOY, *Campus Minister* — B.A., Emory and Henry College; M.Div., Princeton Theological Seminary; Ph.D., Emory University.

DEBRA SMITH, *Director of Financial Aid* — B.S., Union College.

JANE MILLS, *Financial Aid/Work Study counselor.*

LARRY INKSTER, *Acting Athletic Director* — B.S., M.A., Union College; M.S., Eastern Kentucky University; University of Kentucky.

SCOTT JOLLY *Head Basketball Coach* — B.S., Louisiana Tech University.

JOHN ROSS, *Head Football Coach* — B.S., University of Iowa.

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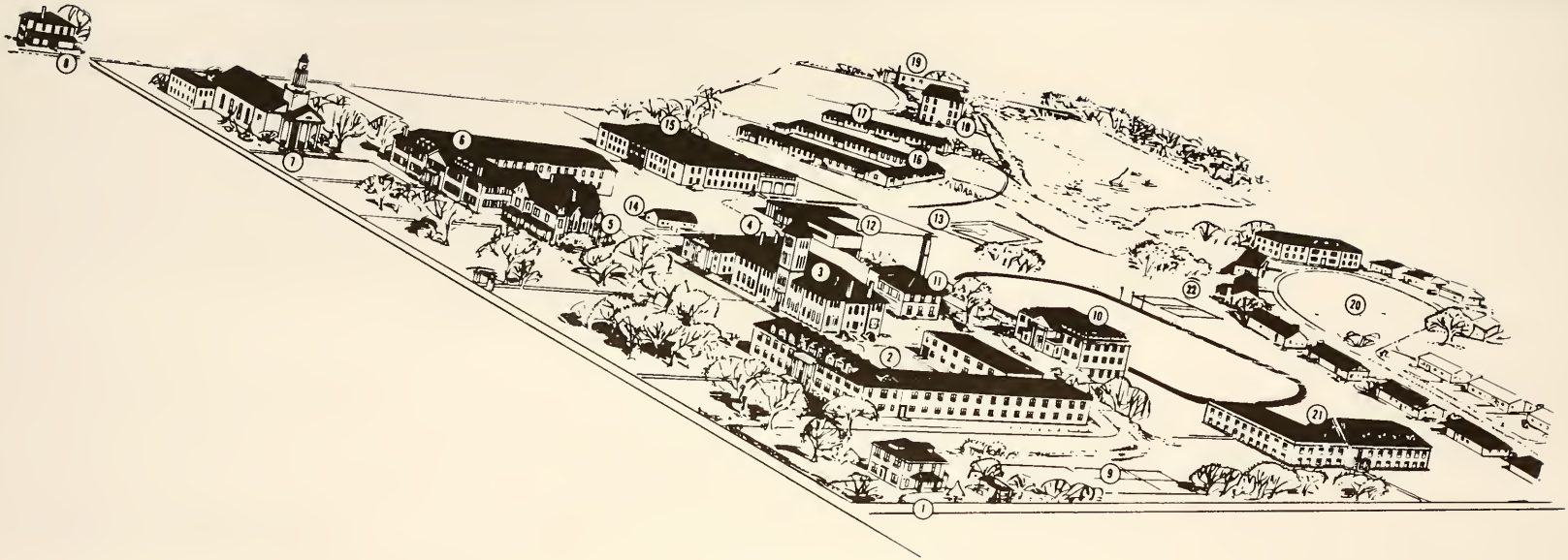

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17. College Courts Addition
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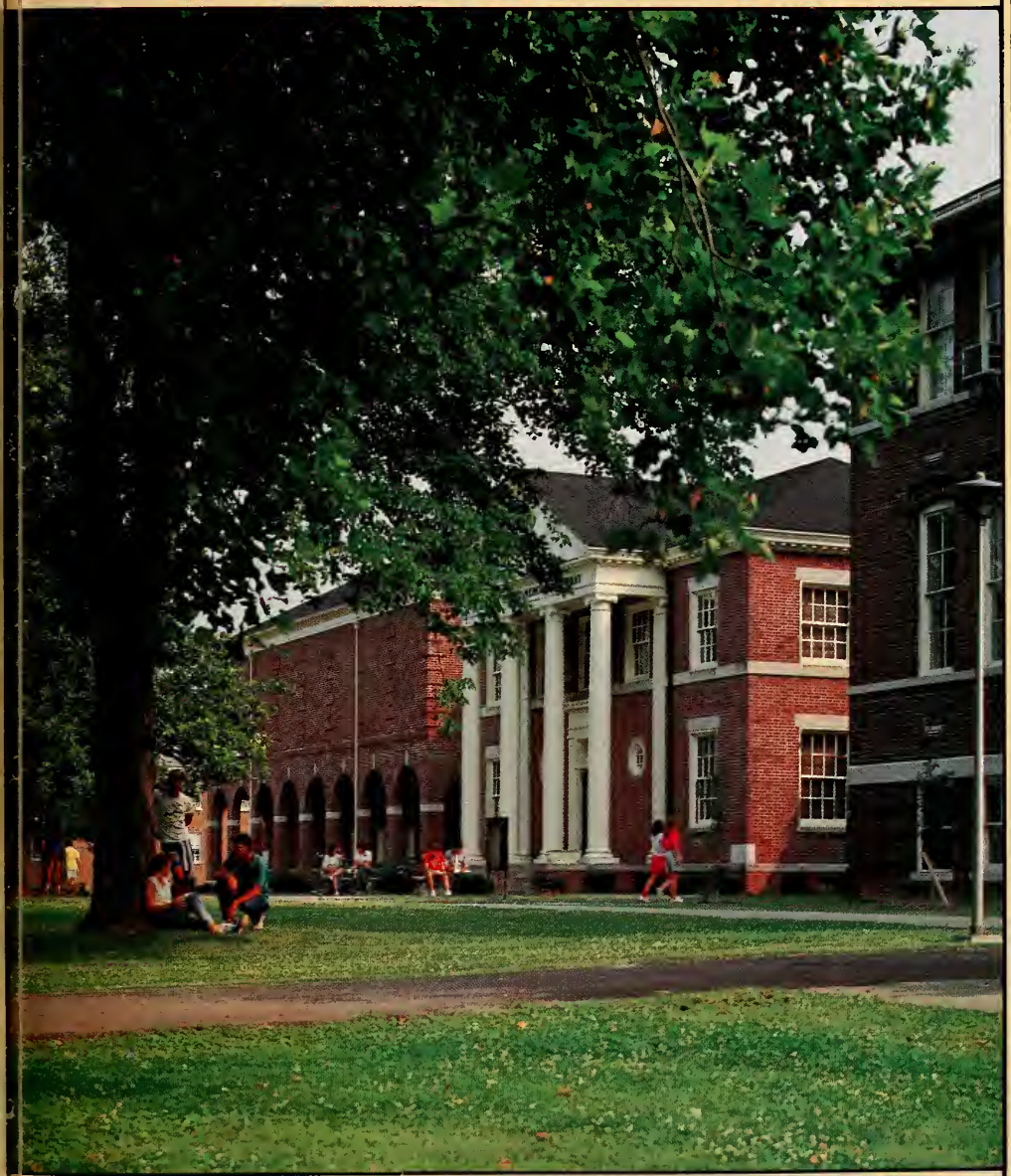

1988-89 Catalog

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While this catalog presents information as accurately as possible as of the date of publication, the College reserves the right to make such changes as future circumstances may require.

DR. JACK C. PHILLIPS

Welcome To Union College

We welcome and invite you to examine Union College. Founded in 1879 by Barbourville citizens and purchased in 1886 by the Methodist Church, Union has as its chief mission, service to the Appalachian area of Southeastern Kentucky, Eastern Tennessee, and Southwestern Virginia.

With an enrollment of over 1,000 students, including both graduate and undergraduate persons, Union College is committed to academic excellence. The College offers the Bachelor of Arts, the Bachelor of Science, the Bachelor of Music, and the Master of Arts in Education degrees. It also offers a Rank I Program beyond the Master's level as well as various associate-degree and certificate programs.

Located on the historic Wilderness Road, Union is the first College in this tri-state area. There are now over 8,000 graduates with over 3,000 having the Master of Arts in Education Degree.

We are proud of our tradition and are pleased that you are interested in our undergraduate program. As you peruse these pages, hopefully you will like what you see. Should you wish to enter our College, we believe your experience will be a profitable and happy one.

Sincerely,

Jack C. Phillips
President

A History of Service

Union College was founded in 1879 by a group of progressive citizens of Barbourville who formed a stock company and secured the main part of the present campus. In 1880, the first building was formally opened on the site of what is now known as Centennial Hall.

The College was purchased by the Kentucky Conference of the Methodist Episcopal Church in 1886, and Daniel Stevenson was made president of the reorganized institution. A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hall, and the Classroom Building (now known as Centennial Hall).

The college department was discontinued in 1908, and for eight years the institution was maintained as a Junior College, an academy, and an elementary school. It became a *bona fide* College again in the presidency of Ezra T. Franklin, who inaugurated a program of development during which the Memorial Gymnasium and a home for the president was built. In 1927, the College was accredited by the University of Kentucky as a four-year college of A grade.

President John O. Gross emphasized the improvement of the curriculum and the building of a strong faculty. In 1931, Union was accredited by the University Senate of the Methodist Episcopal Church, and in 1932, full accreditation was realized when it was made a member of the Southern Association of Colleges and Schools. The Board of Regents of the University of the State of New York placed Union College on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the College achieved marked progress in both its educational programs and in plant improvement. Seven new buildings were completed and others were enlarged. The curriculum was expanded, endowment funds were increased, and a markedly improved program of faculty salaries and benefits was adopted.

Mahlon A. Miller was elected to the presidency in 1959. In 1960, a Master of Arts in Education degree program was introduced, and plant expansion continued with the development of College Park, a faculty residential area, followed by the construction of additional student housing, a physical education building, a student center, and a science center, completed in 1973.

President Jack Carter Phillips began his duties at Union College in January, 1983.

Dr. Phillips earned the Bachelor's Degree at Birmingham-Southern College and the Master of Divinity Degree at Vanderbilt University. He received an honorary Doctor of Laws Degree from Union College in 1981. He was lauded at that ceremony for "notable achievement in the field of institutional fund raising and, in particular, service to the colleges and universities related to the United Methodist Church."

A native of Scottsboro, Alabama, Dr. Phillips served in the U.S. Marine Corp from 1954 to 1957.

Under Dr. Phillips' leadership the college has experienced significant enrollment increases every year. A new 37,000 square foot library addition with computer facilities and a modern well equipped learning resource center opened in 1987.

The College has always accepted a special mission to Appalachia, a commitment which is now being strengthened with unique academic programs based on regional characteristics, expanded student financial aid, student community-service projects, and new career-oriented curricula.

The doors of Union College are open to all who aspire to a more fulfilling life, without regard to race, color, sex, handicap, national or ethnic origin.

Interested and prospective students are encouraged to arrange a visit to the campus by calling the Admissions Office (606-546-4151).

STATEMENT OF PURPOSE
(Mission Statement)

Union College is an independent liberal arts institution of higher education, affiliated with the United Methodist Church. It is dedicated to maintaining an academic and community environment that stimulates intellectual curiosity and scholastic competence, encourages an understanding of and commitment to the Christian faith, and promotes the development of values. Students are admitted to Union College without regard to race, color, creed, age, sex, or physical handicap.

Union College is committed to providing students with the resources necessary for a quality education. The faculty is characterized by sound scholarship and a deep concern for the needs of students. Faculty advisors assist each student to develop career goals and to select academic courses of study appropriate to these goals. Most classes are small, many types of educational experiences are provided, and academic, career and personal counseling are available. Students have access to a wide variety of scholarly and technical resources for their education.

The academic program is designed to meet the College's mission of providing its students with the opportunity to increase their general knowledge and understanding of the world around them and to obtain the skills necessary to compete in the job market. The basic undergraduate liberal arts curriculum makes available to students a large body of knowledge drawn from the humanities, natural sciences, and social sciences. Union offers developmental and remedial programs in basic skills. Majors and areas of study prepare the student for a variety of careers and professional or graduate study. Plans of study in pre-professional, technical and skills-oriented fields enhance post-graduate employment opportunities. In addition, Union offers graduate programs in Education and associate degrees in various fields. These latter programs are offered to meet regional needs. A number of courses in both the undergraduate and graduate programs are taught off-campus in various communities within the primary service area of the College. Finally, the College also has credit and non-credit continuing education courses for the community.

Central Appalachia is Union's primary service area and home to the majority of the College's students. Union affirms a special concern for improving the quality of life in Appalachia and the College strives to serve the region in a number of ways. Technical and skills-oriented plans of study are designed to improve the human resources of the region. The undergraduate and graduate Education programs help meet the personnel needs of the public school system. In order to educate people about Appalachian life, traditions, and problems, Union offers Appalachian studies aimed both at local students and visiting students from other institutions. To further its mission of helping the community, a number of programs are made available to area residents, including the educationally disadvantaged. Many College staff members also participate in community service. Finally, Union trains students for service-oriented professions in this region, including teaching and the ministry, and serves as a cultural center for the community.

GOALS FOR GENERAL EDUCATION

A. COMMUNICATIONS SKILLS

A primary goal of Union College's academic program is to help students develop and improve their communications skills. This includes both *expression* (the ability to convey information and ideas to others) and *comprehension* (the ability to receive and understand information and ideas conveyed by others). An acceptable level of *expression* includes the ability to write and speak in a clear and cogent fashion, while *comprehension* requires the ability to read college level material, listen to lectures and retain and understand the content of the material presented. Therefore, a Union student should, by graduation, be able to:

1. write a clear and cogent essay based on his or her own ideas which obeys the basic rules of grammar, spelling, and punctuation;
2. prepare and deliver a logical and organized oral presentation;
3. read and integrate information into previously acquired knowledge; and
4. listen to a lecture or presentation and recall and understand the major points.

B. ETHICS AND VALUES

As an institution related to the United Methodist Church and one fostering Christian values, Union College does attempt to develop ethical standards as an important part of any student's education. Students should learn to think about and discuss values and ethics and become aware of the major religious and ethical perspectives of humankind. The College encourages an awareness of the Christian faith and believes that students should develop a tolerance toward the viewpoints of others. Upon graduation, the Union student should be:

1. familiar with today's major religious and ethical ideals, and how they developed;
2. tolerant toward and respectful of these different views and ideals; and
3. able to think about and articulate problems and issues related to ethics and values.

C. GENERAL KNOWLEDGE

No education is complete without the acquisition of a solid base of general knowledge. Without such knowledge, the student will not be capable of developing his or her thinking and reasoning abilities. With this knowledge, students will have a storehouse of information that will help them more effectively to exchange ideas, thoughts, and feelings with others. The constant expansion of and change in the corpus of information means that it would be futile to attempt to define precisely on a long-term basis what a student should know. Nevertheless, there are certain areas with which the student should be familiar, at least in general terms. By graduation, the Union student should have:

1. an ongoing interest in and appreciation for music, literature, and the arts, and the traditions on which these fields are founded;
2. an informed acquaintance with the natural and social sciences and technology, and a general awareness of their continuing impact and development through the ages; and
3. acquired reasonable mathematical and quantitative skills.

D. CRITICAL THINKING AND PROBLEM SOLVING

The ability to think critically and to analyze and solve problems is an absolutely essential skill. In an increasingly complex world characterized by a constantly expanding flow of information, it becomes more and more necessary for educated persons in every field to be able to arrive at responsible and considered decisions. A college graduate who lacks these abilities is unlikely to succeed in any area of endeavor. Thinking and analysis develop over many years and cannot become fully developed during an undergraduate career. Union desires that its students make progress in this direction, however, by developing or improving upon their ability to:

1. understand abstract ideas;
2. analyze problems that involve complex sets of facts and relationships; and
3. think and reason in a critical, logical, and objective fashion.

E. CONTEXT

Understanding the modern world depends upon an adequate comprehension of the forces that continue to shape societies. There are many different interpretations of and

explanations for the current world situation, and students are free—and encouraged—to develop their own opinions. During the college years, students have the opportunity to learn about the context of modern civilization—its antecedents and structure. By the completion of their undergraduate program, students should have:

1. increased their understanding of how the modern world works, including its peoples' increasing interdependence;
2. acquired a basic knowledge and appreciation of other cultures; and
3. developed an interest in, and comprehension of, current events and their history.

F. LEARNING SKILLS AND PERSONAL DEVELOPMENT

The development of learning skills and personal development are important goals of all programs at Union College. In addition, courses are offered which are specifically designed to develop learning skills where these are lacking, assisting students to "learn how to learn". Students are also expected to become familiar with ways in which the library supports and complements a liberal arts education and how libraries can serve them throughout their lives. All students are offered the opportunity to use computers to assist their educational experience and to learn how the computer can be useful to them personally.

Commitment to the goal of personal development is evidenced at Union College by the requirement that all students extensively experience the liberal arts. Of special importance is Union's mission to serve the Appalachian people by making a liberal arts education available to the community. Students graduating from such a program will have developed a degree of confidence in their ability and will be prepared to go on in life with the expectation of success in a chosen endeavor. Appalachian students will also develop an increased appreciation of their own culture, place, and importance in the world.

A STATEMENT OF VALUES

Union College is dedicated to preparing students for living informed, socially useful, personally fulfilling, and spiritually vital lives. This commitment involves using knowledge within a context of Christian values. Although it is recognized that as an educational institution Union College has an obligation to help students understand other value systems and their effects when translated into specific areas of human activity, as a United Methodist Church-related college Union affirms an institutional stance based on Christian values such as have evolved in the Judeo-Christian tradition and are contained in the Old and New Testaments. Our intent is both to confess and to practice the Christian faith in all our endeavors.

IMPLICIT IN THIS STATEMENT OF VALUES IS THE REQUIREMENT THAT UNION COLLEGE COMMIT ITSELF TO THE VALUES ENUNCIATED BY ASSURING TO THE MAXIMUM EXTENT POSSIBLE:

To Its Students

(1) the fullest of opportunities to receive a quality liberal arts education.

(2) strong attention to, and genuine concern for, each individual in the college community, including emphasis upon the unique value of each person.

(3) a continuing concern that they learn to appreciate and accept life styles that reflect integrity, honesty, compassion, and social responsibility.

(4) a commitment to provide the experiences necessary to acquire a meaningful understanding of and dedication to Christian love and service to both God and neighbor.

To Its Faculty and Staff

(1) a campus atmosphere of responsible academic freedom dedicated to the constant search for truth.

(2) an academic community dedicated to openness and acceptance of its pluralistic composition, including personnel policies and practices that are recognized without regard to race, creed, sex, color, physical handicap, or national origin.

(3) a constant reminder of the power of Christian example.

To Its Alumni, Benefactors, and the Parents of Its Students

(1) faithful and responsible stewardship of all funds and gifts entrusted to the College.

(2) continuance of meaningful traditions, particularly those unique to a church-related institution, while at the same time encouraging the exploration and implementation of new value-centered activities especially of the type that have strong Christian relationship.

(3) continuing appreciation for the rich heritage of Union College as an independent, non-sectarian, church-related institution in the Christian tradition.

To The United Methodist Church

(1) acceptance of Jesus Christ as God's revelation of Himself, and of the Holy Spirit as God's continuing presence in life.

(2) acceptance of the moral standards which have evolved in the Judeo-Christian tradition as our ideals for living, working and witnessing in an academic community and as the standards for our teachings and personal example.

(3) sensitivity to and a conscientious effort directed toward the satisfaction of the spiritual needs and concerns of the college's students, faculty, and staff.

(4) meaningful responsiveness to and support for the United Methodist Church.

To Barbourville, Knox County, and the Appalachian Area

(1) continuing appreciation that Union College is an integral, social, educational, and spiritual part of the Barbourville and Knox County communities, and of Appalachia.

(2) dedication of the college's resources in teaching, research, and service to the enrichment of the communities of which Union College is a vital part.

(3) a commitment of the personal resources represented by the college's students, staff and faculty to local churches of the immediate and larger community.

ADMISSIONS AND GENERAL INFORMATION

ADMISSION REQUIREMENTS

The minimum requirements for admission as a regular student at Union College are: A high school diploma from an accredited high school, or a high school equivalency certificate based on the GED tests, acceptable ACT or SAT scores, and two letters of recommendation.

The high school transcript should include 3 units of English, 2 of Mathematics, 2 of Social Studies, and 2 of Science. A foreign language is recommended.

Applicants who have previously attended college must have their college transcripts sent to Union. All college work will be considered when an admission decision is made.

The College will decide on the admission of a student within one week of the receipt of all pertinent material: high school and/or college transcripts, ACT or SAT scores, and letters of recommendation.

High School Special Program

A student who has completed the junior year of high school may qualify for the High School Special Program. The student must have a "B" average and must pass all sections of the Placement Test given by the College to be admitted to the program. Two letters of recommendation are required. The student may then enroll for 6 hours or less in any one term for one-half the established summer rate. This scholarship terminates when the student graduates from high school.

Procedure For Admission

Application for Admissions

The application form may be obtained from the Admissions Office, Union College, Barbourville, KY 40906.

Enrollment Deposit

There is no application fee at Union College. All new students are required to pay an enrollment deposit of $25.00, normally by July 1, of which $15.00 is applied to tuition and is refundable until August 1.

Secondary School Transcript

Each applicant must authorize the release of his or her transcript by signing the application form. The Admissions Office will write to the applicant's high school for an official copy of the transcript.

GED Acceptance

An applicant may be admitted on a high school equivalency certificate based on the General Education Development Tests, provided that the scores earned are equal to or above the minimum recommended for college entrance by the American Council on Education.

Entrance Tests

All candidates are required to take the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Applicants should have the results forwarded to Union College. The Union College institution number is 1552 for the ACT and 1825 for the SAT.

A test application blank and bulletin of information may be obtained from the secondary school guidance office or from Union's Admissions Office.

Union College will record a summary of transfer credits, indicating the total number of hours accepted and the quality point average at the sending institution. Union accepts only transfer work in courses with a grade of "C" or above. This policy applies only to credits transferred on a course-by-course basis, not to junior college students who transfer entire degree programs.

Advanced Placement

Students who have successfully passed one or more of the Advanced Placement tests of the College Entrance Examination Board may ask for advanced placement and credit when they submit their application. The Office of the Registrar will decide on the amount of credit to be granted and the college course that may be omitted. Scores of 3, 4, or 5 are required for such action.

Classification of Students

Freshman	less than 32 semester hours
Sophomore	32 semester hours
Junior	64 semester hours
Senior	96 semester hours

Summer Orientation

A one-day Summer Orientation program is required for all students who are entering Union College for the first time.

The program includes placement testing, academic advising, advance registration, and financial counseling and is designed to help students make a successful transition to college.

Early Start Summer Program

A high-school graduate who has not attended college since graduation may be eligible for the Early Start Summer Program. The student must graduate in the upper 50% of his or her class and must have a minimum ACT English score of 16 or SAT Verbal of 410. Two letters of recommendation are required.

Accepted students must enroll for 6 semester hours at Union each summer session. Union College will provide a scholarship for one-half of the tuition charges. If the student lives on campus, there will be no summer room charge. All students must pay a $50.00 refundable room deposit.

If the student's summer grades average 3.0 ("B" average), the student will receive a $250 scholarship as a full-time student in the fall. If the 3.0 average is maintained in the fall, the student will receive another $250 scholarship in the spring. After the spring semester, the scholarship terminates.

Health Certificate

The required physical examination form is mailed by the Admissions Office and should be returned as directed.

Admission of Adult Students

Students 25 or older are not required to furnish ACT or SAT scores. Applicants who lack the GED are urged to contact Union's Adult Education office for assistance.

Admission of Foreign Students

Foreign students must complete the regular admission process (ACT or SAT is not required of foreign students). After the student is accepted, the College must receive payment for the student's first semester costs for tuition, room and board, and fees. This payment must be received at least one month before the beginning of the semester. The student will not be allowed to move into the dormitory or register for classes until payment is completed.

In order to be considered for admission, a foreign student must show English proficiency with a minimum score of 500 on the Test of English as a Foreign Language (TOEFL), or 107 on the ELS English Proficiency, or 70 on the Michigan English Placement Test.

When the admission process is completed, a foreign student is obligated to stay at Union for at least one year. No official transcript or recommendation will be released until the student fulfills the year's obligation. If a student leaves before one year, he must be reported to the Immigration and Naturalization Service. One year is interpreted as two full semesters, excluding summer sessions.

The student must pursue a full course of study. Those who drop to part-time status must by law be reported to the Immigration and Naturalization Service. No visas and/or passports will be renewed until the student's account is paid in full.

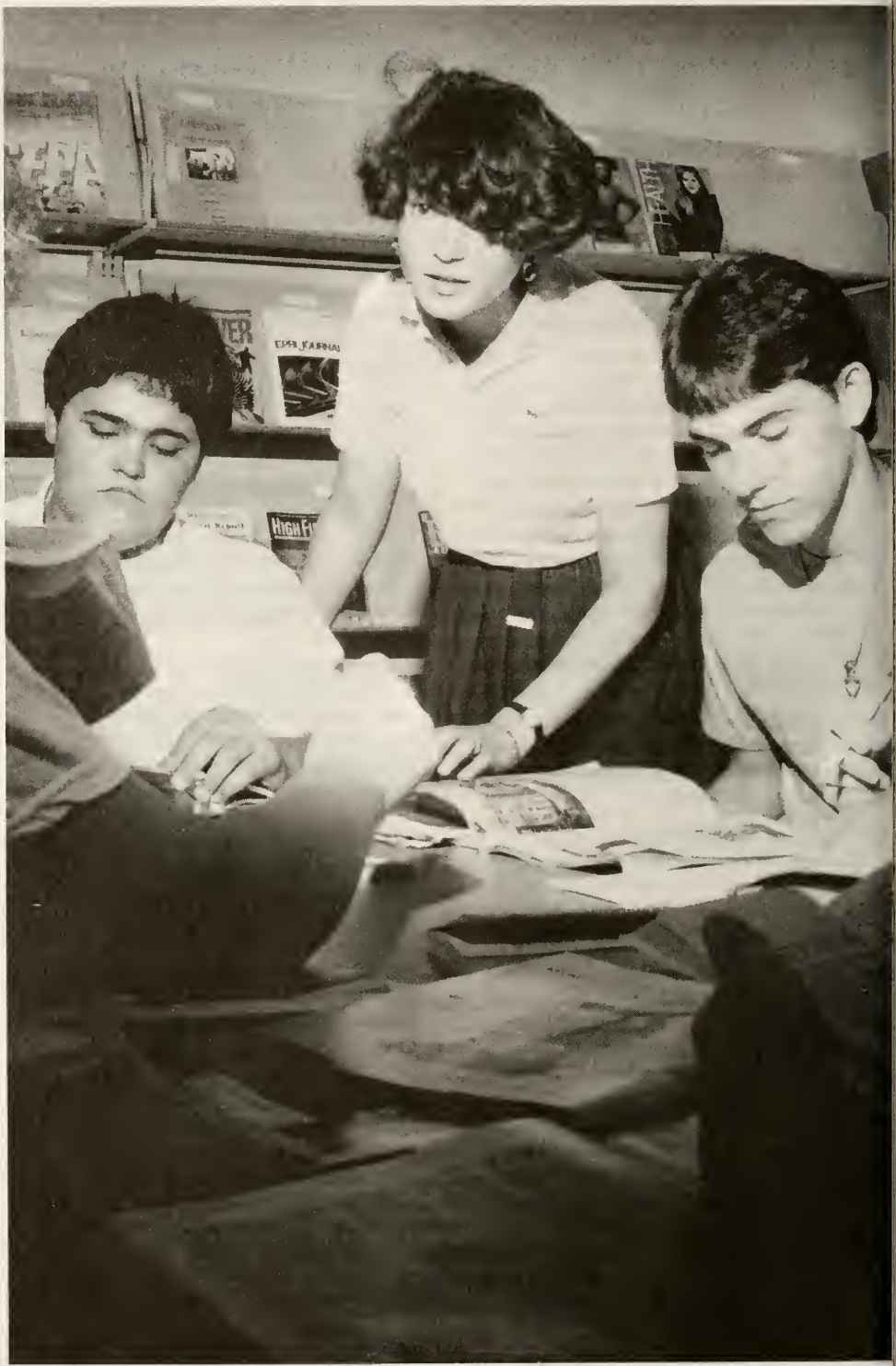
Transfer and Advanced Standing

Students transferring at least 30 hours of credit are excused from Entrance test requirements.

Credits earned from an accredited community college, junior college, senior college, or university can be transferred to Union College. Sixty-seven semester hours is the maximum amount of junior college or community college credit which may be counted toward a degree.

Transfer credits will be accepted at the level of the initiating institution. In case of an appeal for upper division credit when the course was taken at a junior college (or as lower division work at a senior college), a committee consisting of the Registrar, the division chairperson of the area involving the course, and an appointed faculty member from that discipline will review the content, text, level of work, etc., to determine if the upper division credit should be granted.

Students transferring from a two-year institution should make special note of the forty hour graduation requirement of 300 and 400 level courses.



FINANCIAL AID & FEES

TUITION AND FEES

College Expenses

The academic year is divided into two regular semesters, Fall and Spring. In addition, a special May Interim and two special summer sessions are offered, convening in the months of May, June and July respectively. Applicable tuition and fees are as follows.

Undergraduate Expenses (per regular semester)

Tuition (10 to 17 semester hours) and Activity Fee	$2,335.00
Room and Board* (19-meal week)	$1,065.00
Private Room (additional)	$ 100.00
Total for Boarding Student	
—Regular Room	$3,400.00
—Private Room	$3,500.00
Part-time tuition for registering less than 10 or more than 17 semester hours, per semester hour	$ 115.00

(Undergraduate students over age of 50 pay 50% of the established tuition rate.)

Graduate Expenses

Full-time tuition (10 to 17 semester hours)	$2,310.00
Part-time tuition (per semester hour)	$ 115.00
Activity Fee (boarding students only)	$ 25.00

Summer Session Expenses

Tuition, Undergraduate (per semester hour)	$ 115.00
Tuition, Graduate (per semester hour)	$ 115.00
Room and Board (19 meals per week) each term, 5 weeks**	$ 340.00
Room and Board (Sunday dinner through Friday lunch — (15 meals per week) each term**	$ 290.00
Private Room, each term (additional)	$ 30.00

May Interim Term Expenses

Tuition, Undergraduate (per semester hour)	$ 115.00
Tuition, Graduate (per semester hour)	$ 115.00
Room and Board (19 meals per week)	$ 215.00

Note: May Interim tuition may be waived for a full time student who carries 14 semester hours or less in the preceeding spring semester.

Other Expenses

The fees listed below are not a part of the traditional tuition and board and room charges.

Audit Fee (per semester hour)	$ 15.00
Late registration fee***	$ 15.00
CLEP (per test)	$ 35.00
CLEP Credit Recording fee (per course equivalent for Advanced Tests only)	$ 25.00
Portfolio Fee (per semester hour)	$ 25.00
Contract Course (per semester hour)	$ 25.00
Examinations:	
late final examination fee	$ 15.00
credit by examination (Institutional) (per credit hour)	$ 25.00
Graduation Fees:	
Associate degree or Diploma	$ 25.00
Bachelor's degree	$ 30.00
In absentia	$ 25.00
Music Lessons:	
Part-time and Special Students (per semester hour)	$ 80.00
Applied Music (per semester hour)	$ 65.00
Private Lesson (Continuing Education) (per semester hour)	Varies
Transcript-after first copy (one week's notice required)	$ 3.00
Student Teaching Fee	$ 100.00
Special Lab or Studio Course	$ 25.00
College Court Rental, per month (all utilities furnished)	$ 140.00

*Vacation periods are not included in the above quotations. Dormitories and food service are closed during vacations and other periods as noted in the undergraduate calendar. The College reserves the right to entertain delegates to conventions and other related groups in the residence halls

during vacation periods. Students will be notified in advance of such contemplated occasions and assurance given regarding the safeguarding of their personal property during such occupancy.
**All board charges are subject to change without notice, pending contract agreement with the food service.
***Late registration fee can be waived by the Registrar for sufficient reason if permission is requested in advance.
Expenses for May and Summer Sessions are effective June 1, 1988.
Tuition, Fees and other expenses are subject to change. All charges will be announced in the class schedule or through the media.

PAYMENT POLICY

I. Financial Clearance

A student will be cleared for registration only if any previous balance has been paid. The new semester's account must then be paid in full, or a signed payment plan and first installment completed. Summer school and short sessions must be paid in full at the date of registration — no payment plan is permitted for summer or short sessions.

Authorized financial aid will be credited to the student's account and a payment plan set up for the balance. In case the financial aid is anticipated but not yet authorized, the student must pay as a first installment one third of the **total** costs.

A student having any unpaid balance will not be cleared for the release of an official report of grades, a transcript of credits, or a diploma.

II. Finance Charge

A monthly finance charge of one and a half percent (19.5% annual rate) will be added to the unpaid balance on all student accounts at noon on the last working day of each month.

III. Payment Plan

If the new semester's account cannot be paid before registration, a payment plan can be completed and a first installment paid down. The payment plan requires one-third payment on each of the following dates after which the student may be withdrawn from courses if the account is not paid up:

1. On or before fall semester or spring semester registration — one-third.
2. Due October 5th (fall semester) or February 5th (spring semester) — one-third.
3. Due November 5th (fall semester) or March 5th (spring semester) — one-third + 1½% finance charge on the balance.

Any student who owes a balance on his or her account after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

REFUND INFORMATION

Since faculty contracts and other commitments are made by the College for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

1. A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.
2. A full refund may be obtained for a class only if a student has not attended beyond the first session and completes drop/withdrawal procedures with the Office of the Registrar.
3. Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.
4. Tuition and room charges will be refunded on the following basis:

   Regular Semester — Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week. Refund is based on the tuition charges less $10 student center allocation, $1 class dues, $1 student senate fee, $3 for I.D. card, and $25 activity fee.

   Summer and Short Terms — Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.
5. **Refund of Overpayment on Student Account** — If a student makes an overpayment on his or her account, a written request for refund must be submitted to

the Business Office within one year after the end of the last academic term for which the student was enrolled.

6. **Room Reservation Deposit** — This deposit will be refunded if the request is made in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor is no longer enrolled as a student at Union College and that he or she has left the housing facility undamaged and does not owe other bills. The request for this authorization must be made within one year after the end of the academic term for which the student was enrolled.
7. **Enrollment Deposit** — $15.00 will be refunded upon receipt of written request prior to August 1 for the fall semester or 30 days before the first day of class for any other academic session. Refund request should be submitted to the Admissions Office.

FINANCIAL ASSISTANCE

Student expenses. In planning to attend Union College a student should expect the following typical expenses for an academic year: tuition and general fees $4,670, room $600, board $1,530, books and supplies $350. In addition, allowance should be added to these figures for personal expenses, medical insurance, transportation, and extra charges for special courses (such as laboratory fees, etc.). The Office of Student Financial Aid will consider the total costs for attendance, including the items listed above, when making a financial aid commitment.

Purpose of financial aid program. In addition to its own scholarship funds, Union College participates in all federal programs including the Pell Grant Program. Residents of Kentucky are also eligible to receive state tuition grants and loans. Information on Union College scholarships will be found on the following pages.

Students applying for financial aid are considered for all programs for which they are eligible. The amount of financial aid awarded is generally a combination of grant, loan, and employment, and is based on the financial need of the student. Need is determined by subtracting the resources of the student and the contribution of his or her parents from the total student expenses. The parents' contribution is estimated on the basis of the amount of their income and assets as well as a consideration of taxes, medical expenses, and other liabilities of the family. An independent, objective, nationally recognized method of analysis developed by the College Scholarship Service is used to evaluate the family's financial circumstances. All financial aid awards to students are determined by Union College's Office of Student Financial Aid.

Procedures for applying for financial aid. Students must apply for financial aid by submitting a Financial Aid Form (FAF) to the College Scholarship Service. Students applying by March 15 will have a greater opportunity. However, financial aid will still be available after this date. The FAF is used to apply for the Pell Grant, the Kentucky Tuition Grant, the Supplemental Educational Opportunity Grant (SEOG), College Work-Study, Perkins Loan (formerly National Direct Student Loan) and any institutional funds. The FAF may be obtained from a high-school guidance office or the Office of Student Financial Aid. Students should specify 1825 as the code number for Union College in the appropriate section of the FAF.

A Financial Aid Notification along with information about any aid offered will be sent from Union College to each student who applies.

Procedures for reapplying for financial aid. A student must reapply for financial aid each academic year. However, aid usually continues at the same level each year unless a student's resources or the expected contribution of his or her parents change. All enrolled students receiving aid automatically receive information about applying for renewal awards. Other enrolled students should request applications by February 15.

In order to continue to receive financial aid, a student must be making satisfactory progress toward his or her degree. A student may be said to be making satisfactory progress during the first semester on academic probation. However, he or she is not considered to be making satisfactory progress should he or she continue on academic probation for a second consecutive semester, or fail to complete 50% of the courses for which he or she enrolls in any one semester. The maximum number of semesters for which financial aid may be received is ten.

The Tax Reform Act of 1986 has changed the regulations governing the taxation of scholarships, fellowships, Pell Grants, Athletic grants-in-aid and other grants received by the student. Students are responsible for determining what part of their financial assistance is taxable. This can be done by subtracting allowable expenses (tuition, fees, and required books, supplies, and equipment) from the sum of scholarships, fellowships and grants. The amount of these awards in excess of allowable expenses is to be reported as taxable income. Loans, including the subsidized portion of government loans *are not* considered income for tax purposes.

Grants

Pell Grant — A program providing direct grants from the federal government. The student receives an eligibility report (as a result

of his or her Financial Aid Form application) which can be submitted to Union College for payment. It is expected that the maximum amount for the Pell Grant for 1988-89 will be $2,200.

Supplementary Educational Opportunity Grant (SEOG) — A program designed by the federal government to assist undergraduate students with exceptional financial need (with priority given to Pell Grant recipients). The grant is permitted to range up to $4,000 per year depending on need and availability of funds.

Kentucky Tuition Grants — The program provides grants to students who are residents of the Commonwealth of Kentucky and who demonstrate a need through the analysis of the Financial Aid Form application. The maximum grant for 1988-89 will be $1,700.

Employment

College Work-Study Program — If a student still requires financial support to meet college costs after the federal and state grants are awarded, the student may be given the opportunity to earn an amount on an hourly basis in a campus department. This employment program is campus-based support from the federal government. Either undergraduate or graduate students can qualify if the Financial Aid Form results indicate a need.

Work-Grant — If a student cannot qualify for employment on the basis of financial need and the College needs the special skills of the student, the student can work for an amount of tuition waiver.

Coop Program with Tremco, Inc. — is available to a qualified sophomore, junior, or senior majoring in chemistry.

Loans

Perkins Loan (formerly National Direct Student Loan) — Federal loan funds are made available to students who have financial need and who maintain satisfactory progress towards graduation. Repayment at a 5% interest rate begins, for new borrowers, nine months after graduation or withdrawal from school.

KHEAA Guaranteed Student Loan Program — This loan program exists in Kentucky and other states as a way to borrow from private commercial lenders to finance college education on the undergraduate and graduate levels. Repayment at 8% interest begins 6 months after graduation or withdrawal. Minimum payments are $50.00 a month. Eligibility depends upon at least half-time enrollment status, a "C" average for undergraduate students, and a reporting of family income, by filing the FAF. The loans are insured by the state.

United Methodist Student Loan Fund — Students who are members of the United Methodist Church and maintain a "C" average may apply through Union College for a loan at 6% interest from the Board of Education of the United Methodist Church.

Charles M. and Mary D. Grant Loan Fund — The Charles M. and Mary D. Grant Foundation has provided an endowed loan fund for Appalachian students who demonstrate a real need and who are in good standing at the College.

Hensley Emergency Loan Fund — Mr. and Mrs. Burton F. Hensley of St. Cloud, Florida, have established a loan fund for single students at Union College who have emergency situations requiring small short-term loans.

The Rev. and Mrs. Erwin King Loan Fund — The Rev. and Mrs. Erwin King have established a loan fund to aid worthy ministerial students in the junior or senior year at Union College.

Guy H. Williams Loan Fund — Dr. Guy H. Williams of Cleveland, Ohio, has established a loan fund in memory of his wife, Anna Williams. The fund is available to worthy students who have spent two years at Union College and have a "C" average or better.

The Beverly P. and Mossie B. Wilson Loan Fund — This loan fund has been established by Dr. and Mrs. O.J. Wilson of Louisville, Ky., in memory of Dr. Wilson's mother and father. The loans shall be given to students majoring in English and repayment shall be in accordance with the guidelines of the College's loan fund. The income from this fund shall come from the Beverly P. and Mossie B. Wilson Trust Fund.

The Charles Henry and Glennora Rominger Krieger Student Loan Fund — This loan fund, established by the late Glennora R. Krieger of Ft. Thomas, Kentucky, provides loans to worthy and needy students from the Appalachian counties of eastern Kentucky.

The terms of the loan are the same as those of the United Methodist Student Loan Fund.

Other Loan Funds — Student loans are available from a number of funds not specifically designated for Union College students, but for which Union College students are eligible. Specific information may be obtained from the Office of Financial Aid.

Institutional Grants/Scholarships

United Methodist Church Grants-in-Aid — Union College will provide grants of $500 for full-time United Methodist students and will request the student's home church to match the grant. If the student plans to go into the Methodist ministry or if the student is a dependent of a Methodist minister, then a $1,000 grant will be provided by the College. In each case, a request is made to the local church to match the grant.

The grants are for one year, renewable, and may be applied to any Union College charges (tuition, fees, room and board on campus). A student is eligible for only one of the above grants.

College Employee Scholarships — Full-time employees of Union College are eligible for tuition remission scholarships. Full-time employees hired after January 1, 1975, will not be eligible for tuition scholarships for spouse or children until they have been employed for six months unless they are under annual contract. The spouse and unmarried children of full-time employees hired after June 1, 1982 may receive a Union College Employee Dependent Scholarship equal to 50% of the tuition, charges, with no charges for auditing a course. Other fees are charged in full. Employee Dependent Scholarships will not be granted to children for graduate work. Application for a scholarship must be made through the Financial Aid Office prior to the registration date each term. The Kentucky Financial Aid Form (KFAF) must be filed to determine eligibility for federal and state aid before an Employee Dependent Scholarship will be awarded. A tuition grant at other colleges participating in the Tuition Exchange Program is also available to employees' unmarried dependent children.

Assistantships

Senior Assistantships are available annually. Students must: be enrolled full time, have completed ninety-six hours with a 3.0 minimum grade point average overall and in their major. The duties of the Senior Assistants include occasional classroom lectures, research, remedial work with beginning students, assisting in laboratories, etc. The assistantships are not intended to cover clerical duties. The assistants are expected to spend up to eight hours per week on the work assigned with the awards ranging up to $1,000 per year. The awards are made by the Scholarship Committee. Candidates are to be recommended by the division chairperson by April 1.

Scholarships

A full-time student who qualifies for scholarship assistance on a merit basis may be entitled to more than one of the following scholarships in any one academic year. The total amount of scholarship and other financial aid cannot exceed 100% of the annual college costs.

Valedictorians and Salutatorians are awarded $2,500 and $2,000 respectively. Students in the top 10% of their graduating class are awarded $500. Evidence of high-school rank must accompany the transcript, certified by the high school attended. These scholarships are renewable every year of the student's undergraduate program at the original amount, if a minimum cumulative grade point average of 3.5 is maintained, or at two-thirds of the original amount for a 3.0 minimum average.

Academic Scholarships based on ACT/SAT scores are available, to beginning freshmen, as shown in the chart below. These scholarships are renewable for succeeding years at the original amount if the student maintains a minimum cumulative grade point average of 3.5, or at two-thirds of the original amount for a 3.0 minimum average.

ACADEMIC SCHOLARSHIP CHART

ACT Scores	SAT Scores	Award
20	900	$ 600
21	950	$ 700
22	1000	$ 800
23	1050	$ 900
24	1100	$1,000
25	1150	$1,200
26	1200	$1,400
27	1250	$1,600
28	1300	$1,800
29 and up	1350 and up	$2,000

Junior College Scholarships — in the amount of $500 are awarded to graduates of junior or senior colleges who have earned the A.S. degree with a grade point average (GPA) of at least 2.5 on a 4.0 scale. These scholarships are renewable in the senior year at $500 if the student maintains this average, or increase to $600 if the student increases his grade point average to 3.0.

Alumni Scholarships — The Alumni Association of Union College awards six scholarships of $500 annually. These scholarships are given on the basis of character, need, and evidence of future usefulness. They are open to all full-time undergraduate students with a minimum 2.8 GPA.

Dr. and Mrs. Edward S. Amis Endowed Scholarships — Dr. and Mrs. Edward S. Amis of Fayetteville, Arkansas, have endowed a scholarship fund at Union College. Dr. Amis received the Distinguished Alumni Award in 1985. The two $500 grants will be given annually to two full-time Christian-service students who excel in local church programs.

The Ashland First United Methodist Church Scholarship — The members of the First United Methodist Church of Ashland, Kentucky, have endowed a scholarship for a "worthy student", preferably a member of this church. If no member-students are eligible, the scholarship may be awarded to any United Methodist student from Kentucky.

The George L. Bagby Scholarship/Loan Fund — The late Mr. George L. Bagby of Woodford County, Kentucky, established a student financial aid endowment totaling $405,000 including accumulated interest, and this supports both scholarships and loans for Kentucky students.

Bank of Harlan Scholarships — A number of scholarships are given annually to qualified students from Harlan County by the Bank of Harlan. The grants are determined according to financial need and academic excellence.

Barbourville Kiwanis Scholarship — The Kiwanis Club of Barbourville, Kentucky, has supplemented an educational fund originated by Mr. C.F. Heidrick and established a scholarship fund at Union College for promising students from Knox County, Kentucky. The scholarship is for $800.

Barbourville United Methodist Church Music Scholarships — Annually the First United Methodist Church of Barbourville, Kentucky, awards four scholarships of $200 (for a total of $800) to music students. Consideration is given for participation in the music program of the local church.

Bell County Scholarship — A friend of Union College from Bell County, Kentucky, has established a scholarship endowment with the income to be awarded annually to a Bell County student. This grant will be approximately $350 per semester.

Henry C. Black Memorial Scholarship — This scholarship of $250 is given as a memorial to Mr. Henry C. Black, a graduate of Union College, to a freshman graduating from high school in Kentucky or Tennessee.

John A. and Hannah P. Black Memorial Scholarships for Christian Workers — The late Dr. and Mrs. Henry C. Black, of Johnson City, Tennessee, endowed a scholarship that provides an annual grant of $500 for a promising student who plans a life of service in the United Methodist Church.

Dr. and Mrs. James F. Blair Scholarships — Dr. and Mrs. James F. Blair of Barbourville, Kentucky, have endowed two $600 scholarships for students from Knox County, Kentucky. They are awarded annually to students in the sophomore, junior or senior year.

The Annette and Berry Burnaw Scholarship Endowment — Given by James Burnaw, an alumnus of Union College, in honor of his parents. The yield is designated for a student from Nicholas County, Kentucky. Should there be no qualified student from this area during a given year, the scholarship will be given to some other Kentucky student.

The Eulalia Serrano Cabrero Memorial Scholarship — Miss Carmen Cabrero, '64, Jacksonville, Florida, has established a scholarship in memory of Eulalia Serrano

Cabrero, a 1964 graduate of Union College. The $300 scholarship is available to a needy student of a minority background interested in a service profession.

Dr. and Mrs. Carlo B. Cawood Memorial Scholarship — The late Dr. and Mrs. Carlo B. Cawood of Harlan, Kentucky, endowed a scholarship to be awarded to a Harlan County student, with preference being given to a student from the Harlan United Methodist Church. The scholarship may be renewed. The grant is $800 per year.

Mamie D. Chambers Endowment Fund — The late Mamie D. Chambers of Maysville, Kentucky, established an endowment fund, the income from which is used to help support grants to needy and deserving students.

The Dr. Emerson G. and Edith Cobb Chemistry Endowment Fund — Dr. and Mrs. Emerson G. Cobb of Burson, California, have established an endowment for the support of the College's Chemistry Department. This fund may evolve into a chemistry chair or into a scholarship fund as per the wishes of the donor. Dr. Cobb, a 1928 graduate of Union College, headed Union's chemistry program and later became head of the Department of Chemistry at the University of the Pacific, Stockton, California. Mrs. Cobb, the former Edith K. Cheap, is a 1929 Union graduate with a chemistry major.

The Reverend Howard and Kathryn Coop Scholarship — Established in honor of the Coops by friends in churches where they have served, the Coop Scholarship is designated for Methodist students with preference being given to Kentucky Methodists.

The Davies Memorial Scholarship — The family and friends of Miss Ellen Davies and Dr. T.R. Davies have endowed a $1,000 scholarship to be awarded annually to a freshman or to an upperclassman with a "B" standing from Bell, Clay, Harlan, Knox, Laurel or Whitley County.

The Doan-Woody Scholarship — Oatis Doan of Harlan, Kentucky, has endowed a scholarship that provides an annual grant to a southeastern Kentucky student who has a 3.25 grade-point average. The grant, a memorial to Oatis Doan, Sr., is in honor of Mary H. Doan and Dr. Lester G. Woody, and may be renewed if the student maintains an overall grade-point average of 3.00 or better.

Dr. Robert M. Drew Endowment Fund — The Commission of Missions of the Hyde Park Community United Methodist Church, of Cincinnati, Ohio, has established an endowment fund in honor of the Rev. Dr. Robert E. Drew. This fund will be used for scholarship grants to foreign students.

Dr. Franklin Duncombe Memorial Fund — Mrs. Helen Duncombe of Haverford, Pennsylvania, has established an endowment fund in memory of her late husband. Income will be used to finance grants-in-aid for students planning to enter the United Methodist ministry.

Alfred I. DuPont Scholarship Fund — The late Mrs. Alfred I. DuPont of Wilmington, Delaware, established scholarships for needy students having high academic potential. Preference is given to students from the Appalachian counties of Kentucky and Appalachian regions in adjoining states.

E. Nettie Edinger Memorial Scholarship — The late Mr. Joseph Edinger endowed this scholarship in memory of his sister. The scholarship is awarded annually to a deserving and worthy student enrolled at Union College.

Dr. and Mrs. J. Edward Faulkner Memorial Scholarship — This $350 scholarship is awarded to a student who plans a life of service in the healing arts, with preference being given to a predental student.

John D. Feather Scholarships — The late John D. Feather of Corbin, Kentucky, a graduate of Union College in the class of 1940, has endowed scholarships to Union College for students from Corbin High School. The trust fund will provide funds for this scholarship program.

The GAR Foundation Endowed Scholarships — The GAR Foundation has endowed scholarships for Appalachian students with priority being given to those from the Fifth Congressional District.

The President E. T. Franklin Endowed Scholarship — Mrs. Grace I. Franklin, widow of former Union College President E. T. Franklin, and the immediate family have established an endowed scholarship, the yield from which will be awarded to a student or students who maintain acceptable grades, who are in financial need, and who plan to enter some form of Christian service.

W. Glover Giles Memorial Fund — The late Mr. W. Glover Giles of Louisville, Kentucky, a trustee of Union College, established an endowment fund by gifts during his lifetime and by a bequest. Income is used to fund Honor Scholarships at Union College.

John O. and Harriet B. Gross Memorial Scholarship — Family and friends have endowed a scholarship. Dr. Gross was president of Union College during the years 1929-1938. The scholarship is awarded annually to a Kentucky senior student with preference being given to one from Northern Kentucky. The stipend and requirements are the same as for "United Methodist Scholarships."

Hugh and Joyce Haggard Memorial Scholarship — A scholarship fund memorializing Dr. Hugh E. and Joyce A. Haggard, and their children, Walter M. and Stephanie L., has been established by the parents and brother of Dr. Hugh E. Haggard. Income from the fund provides an annual scholarship for a full-time student at Union College. The $1,800 scholarship will be awarded to a worthy student on the basis of financial need.

Dewey and Rachel B. Hendrix Memorial Endowment — Dwight M. Hendrix, an alumnus of Union College and his sister, Mrs. Mary Katherine Hendrix Brashear of Hyden, Leslie County, Kentucky, have established an endowment to memorialize their parents. The endowment is designated for financial aid, with the income to assist needy and qualified students enrolled full-time. Students who are residents of Leslie County, Kentucky, are given preference. Should no one qualify, then the grants are to be given to students from the Appalachian Region of Kentucky.

Walter S. and Ida Cole Hudson Scholarship Fund — The late Ida Cole Hudson of Barbourville, an alumna of Union College, endowed, through a bequest, a fund to provide scholarships to students from Knox County, Kentucky.

Irene Hughes Scholarship — Miss Irene Hughes (AB '37; MA '63), Barbourville, Kentucky, provides an annual scholarship of $250 for a freshman girl, a graduate of Knox Central High School, who has been a member of the High School Honors English Class and who exemplifies Christian principles of conduct. The scholarship will be awarded by the Alumni Scholarship Committee.

Dr. W. A. E. Johnson Memorial Scholarship — Mrs. W. A. E. Johnson of Lawrenceburg, Kentucky, and friends have endowed a scholarship in memory of her late husband, a Union graduate and long-time friend of the College. The scholarship is designated for preministerial or Christian-service students.

Professor and Mrs. Millard L. Jordan Scholarship — Professor and Mrs Millard L. Jordan of Lakewood, Ohio, have established a scholarship fund at Union College to aid worthy Appalachian students.

Junior Study Club Scholarship — The Junior Study Club of Barbourville, Kentucky, provides a $200 scholarship to aid worthy students from Knox County, Kentucky. The scholarship is awarded to a girl who graduated from a high school in Knox County and who is a junior or senior at Union College.

Kentucky River Coal Corporation Scholarship — A scholarship endowment has been established by the Kentucky River Coal Corporation, Lexington, Kentucky, for needy students from Knott, Leslie, Letcher, and Perry counties, Kentucky. Recipients must have a grade point average of at least 2.0 during their senior year in high school, or must have or maintain a grade point average of at least 2.5 at Union College.

Jeffrey W. Kronk Memorial Scholarship — Mr. and Mrs. Walter F. Kronk of Huntsburg, Ohio, have endowed a scholarship for a needy, qualified student for Geuga, Lake, or Astabula counties in Ohio, or from the Appalachian counties of southeastern Kentucky. The scholarship is in memory of their son, Jeffrey, who was enrolled at Union College from 1963 through 1967. Should there be no qualified student from these areas in any given year, the endowment income will be used to support the Lincoln-Civil War Collection at Union College.

Verna Noe Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, has established a $500 annual scholarship at Union College in memory of his mother, Mrs. Verna Noe Landrum. The award is to go to a student from Harlan County.

W.B. Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, provides annually a scholarship of $500 in memory of his father for a promising United

Methodist ministerial student. The student benefited by this scholarship must exhibit outstanding personal attitudes of religious sincerity, devotion, and earnestness in purpose.

London Laundry Scholarship — The London Laundry & Dry Cleaners, London, Kentucky, has established an annual $350 scholarship to assist, during his freshman year at Union College, a student who has graduated from a high school in southeastern Kentucky.

Dorothy Lucas Memorial Fund — An endowment fund has been established in memory of Miss Dorothy Lucas, registrar of Union College for many years and beloved friend of students. The income from this fund is used to support various student-aid activities of the College.

The Magee Christian Education Foundation awards annually a scholarship for students entering Christian vocations or professions or to those of economic need who are of Christian commitment.

Gayle Miles Scholarship — An endowed scholarship has been established by friends and former students of the late Gayle Miles for students from Barbourville High School. Miss Miles taught at both Barbourville Elementary and Union College.

John and Minnie B. McGaffee Trust Fund — Dr. and Mrs. O.J. Wilson of Louisville, Kentucky, have established the John and Minnie B. McGaffee Trust Fund for the purpose of providing financial assistance to worthy and needy preministerial students. The income may be used for grants or loans, with preference being given to students from the Appalachian Region of Kentucky.

Drs. Robert and Gertrude McGuire Endowed Scholarship — Drs. Robert and Gertrude McGuire, graduates of Union College, have established an endowed scholarship for a Union student having a financial need and maintaining a minimum of a B average.

National United Methodist Scholarships — The Board of Education of the United Methodist Church makes available annually several United Methodist Scholarships of $500. The awards are made on the basis of character, need, and scholastic ability. Only students having at least a "B" average are eligible.

Mr. and Mrs. Hiram H. Owens Memorial Scholarship — Mrs. Sampson B. Knuckles (Jean) and Mrs. Buford T. Clark (Eleanor) have endowed a scholarship for a Knox County student in memory of their parents, Mr. and Mrs. Hiram H. Owens. Mr. Owens was a well-known lawyer and Mrs. Owens (Georgia Black) was the daughter of James D. Black, a governor of Kentucky and a president of Union College.

The Frances L. Patridge Scholarship — Friends have endowed a scholarship in honor of Dr. Frances Patridge, a friend and employee of the college longer than any other faculty member, with over 40 years of service. Her last rank was Vice President for Student Affairs and Associate Professor of Health and Physical Education. The yield will be placed in the general scholarship fund and designated for upper division students with a 2.5 or better grade point average.

Emory Evan Peter Memorial Endowment — The late Mrs. Laura P. Dickey of Louisville, Kentucky, established an endowment fund in memory of her brother, Emory Evan Peter. The income from this fund will be used to help finance the college student-aid program.

Donald Rankin Memorial Scholarship — Friends of Donald Rankin, a Union College student killed in Vietnam, have provided a scholarship that pays $350 annually to a young man from Kentucky. Basis for awarding the scholarship is need and the earnest desire for a college education.

The Marvin Robbins Endowed Memorial Scholarship — An endowed scholarship has been established in memory of Mr. Marvin Robbins, a graduate of Union College. The applicant must be an upperclassman who is a Bell County High School Graduate. The selection will be based upon academic achievement and financial need.

E.O. Robinson Mountain Fund Scholarship — The E.O. Robinson Mountain Fund has established an annual scholarship program to assist needy students who reside in the Appalachian Region of eastern Kentucky. Students receiving these scholarships should give promise of being able to complete their academic work successfully. They should be and remain unmarried while receiving assistance from this scholarship. Qualified persons should apply to the Office of Financial Aid.

The William Faulkner Rushton Memorial Fund — A memorial fund in memory of William Faulkner Rushton has been established by parents and friends in honor of Mrs. Lura Faulkner Rose, the late Mr. Rushton's grandmother. The yield from this fund is designated for the promotion of Appalachian literature. An annual prize will be awarded to the author for their contributions in this field.

Sanders Honor Scholarships — The late Colonel Harland Sanders of Shelbyville, Kentucky, provided a number of honor scholarships annually. Mrs. Claudia Sanders, his widow, continues to provide them. The Sanders Honor Scholarships are limited to students who do not use tobacco and alcoholic beverages.

Sims Scholarship Fund — Reverend and Mrs. Harry C. Sims of West View, Kentucky, have established a scholarship fund at Union College to aid worthy students preparing for the United Methodist ministry.

The Catherine Faulkner Singer Memorial Scholarship — This $400 scholarship has been established by friends, alumni, and her daughter and son — Marcia and Donald — for the son or daughter of an alumnus of Union College. The honoree was Director of Alumni Affairs from 1961 to 1978.

Cawood Smith Harlan County Scholarship — Dr. Cawood Smith, Harlan County attorney, has established an endowment for scholarships to be awarded to the son or daughter of miners from Harlan County, Kentucky. The recipient shall be a resident of Harlan County and is to be selected upon the basis of need, scholarship, and promise of future usefulness in the coal region. This annual grant shall total $2,400.

Margaret Carter Stacy Scholarship Fund — Margaret Carter (Mrs. Cortis K.) Stacy of West Liberty, Kentucky, has endowed a scholarship fund for the support of students from Morgan County, Kentucky, or for Appalachian students. Mrs. Stacy is a strong United Methodist with interest in higher education for the youth of Appalachia.

Dr. and Mrs. Charles B. Stacy Memorial Scholarship Fund — A scholarship fund has been endowed in memory of Dr. and Mrs. Charles B. Stacy of Pineville, Kentucky, for students from southeastern Kentucky. A long-time friend of Union College, Dr. Stacy had an abiding interest in education of the Appalachian region.

The Steele-Reese Foundation Endowed Scholarships — The Steele-Reese Foundation of New York City has established a $100,000.00 endowment with the yield being designed for scholarships for qualified Appalachian students.

The Stevens Family Scholarship Fund — Dr. Erland P. Stevens, a Union College trustee of Ashland, Kentucky, and Mrs. Stevens have established a scholarship fund with 80 percent of the earnings being distributed annually as scholarship grants and with 20 percent of the yield being reinvested in the Stevens Family Scholarship Fund. The scholarships shall be a part of the College's general scholarship fund.

Lewis Ogden Stiles Endowment Fund — The late Mrs. Lewis Ogden Stiles of Waco, Texas, established this fund to memorialize her late husband, Lewis Ogden Stiles, and his first wife Pearl Long Stiles, both faithful United Methodists of Irvington, Kentucky. The income from this fund will be used to finance grants-in-aid under the college loan-grant program to United Methodist students planning to enter the ministry of the Kentucky or Louisville Annual Conference.

The Walter B. and Geraldine G. Sutton Memorial Scholarship — An annual scholarship will be given to a Knox County student attending Union College. The selection will be determined by the student's need, academic ability, and promise of future usefulness. The endowment is provided by two daughters: Carla Sutton Combs and Lynn Sutton Prichard.

Lytle and Dorothy Swope Scholarship — Dr. Samuel G. Swope of Louisville, Kentucky, a trustee of Union College, and F. William Swope of Elizabethtown, Kentucky, have established a scholarship endowment as a memorial to their parents. Funds for the endowment came from their parents' estate. Up to four scholarships are awarded annually with grants of $800 each. Preference is given to students born in Kentucky, Ohio, or Florida.

Hulbert Taft, Jr., Memorial Scholarship — Mrs. Thomas C. Haydock, Sr., of Cincinnati, Ohio, has provided a scholarship endowment as a memorial to her late husband, Hulbert Taft, Jr. The income from the endowment will be used annually to provide one or more honor scholarships to needy students having high academic potential.

The Dot Tatman Endowed Scholarships — Four $250 endowed scholarships have been established by the Reverend Dr. Harold W. Tatman, Jr., in honor of his wife, Dot. The scholarships are to be given to freshmen and continue over the four-year period with preference to Kentucky female students.

The Teagle Foundation Appalachian Scholarships — The Teagle Foundation of New York City has established a number of scholarships for qualified Appalachian students. The foundation was established by Walter Clark Teagle, Rowena Lee Teagle, and Walter C. Teagle, Jr.

Edward Townsend Memorial Scholarship — Dr. Milton H. Townsend has endowed a scholarship with preference being given to a history and political science major. The grant is in memory of Dr. Townsend's late father.

TREMCO Inc., Scholarship — A $1500 scholarship is awarded by TREMCO, INC., a division of the B.F. Goodrich Company, to an incoming freshman chemistry major with preference to a student from southeastern Kentucky.

Allan Tuggle Scholarships — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a number of scholarships in mathematics and physics.

Several of the scholarships are awarded to entering freshmen on the basis of competitive examination. Other scholarships are awarded to current students with majors or minors in mathematics or physics on the basis of academic achievement. Some of the scholarships may be in the form of work grants.

Union National Bank Scholarship — The Union National Bank of Barbourville, Kentucky, has established a half-tuition scholarship at Union College to aid worthy students from Knox County, Kentucky. It is awarded to a student graduating from a high school in Knox County, for the freshman year at Union College.

Vaughn and Melton Company Scholarship — This scholarship is given by Vaughn and Melton, Consulting Engineers of Middlesboro, Kentucky. An annual award of $500 for a student from southeast Kentucky whose high school and college scholastic record reflects the potential for making a major contribution to the quality of life of the region.

Harry C. Viall Memorial Scholarship — Mrs. Harry C. Viall of Barbourville, Kentucky, has endowed a memorial scholarship for a needy, qualified student with preference going to an individual from Knox County. The annual $1,300 scholarship is given in memory of her late husband, Harry, who was a prominent local businessman.

Mr. and Mrs. O. H. Viall Memorial Scholarships — The family of Mr. and Mrs. O. H. Viall of Barbourville, Kentucky, has established a memorial scholarship fund at Union to aid worthy students. The number and size of the scholarships vary according to student financial need.

The Robert E. and Ann Viall Endowed Scholarships — Mr. and Mrs. Robert E. Viall of Barbourville, Kentucky, have established endowed scholarships that provide $6,000 annually for worthy students from either Knox or Bell County.

William M. Wilson Memorial Scholarship — The late Mrs. Eva Oldfield Wilson of Barbourville, Kentucky, established a scholarship fund in memory of her deceased husband. The income from the fund will be used to provide an annual grant of $350 for a promising student preparing to teach in the elementary or secondary schools.

Dr. Henry M. Zimmerman Scholarship — The late Dr. Henry M. Zimmerman of Pompano Beach, Florida, established a scholarship endowment for needy students of exemplary character who show promise of being able to contribute to the well-being of their country and their fellow man.

Endowments

The Russell M. Bennett Memorial Professor of Sociology Chair — Mrs. Helen Hunt Bennett gave $75,000 to Union in 1946 for the endowment of this professorship. An additional $2,000 was given for equipment for the Business Department.

Andrew and Emma Elizabeth Edinger Memorial Fund — This fund was established by the late Mr. Joseph Edinger in memory of his mother and father. The fund has been increased by other members of the family and the income designated for use in the maintenance of campus buildings.

James P. Faulkner Memorial Endowment — James P. Faulkner of Barbourville, Union

College president from 1897 to 1905, gave property to the college, the sale of which produced $57,500. The income from this investment is used for salary support for a faculty member in philosophy.

The Raymond W. Gibson, Sr., Chapel Endowment — Mr. Raymond W. "Deacon" Gibson, Senior, of Danville, Kentucky, established a $50,000 endowment at Union College in 1979 for the upkeep and maintenance of the Conway Boatman Chapel. His son, Raymond W. Gibson, Jr., served as Campus Minister at Union College from 1974 to 1979. The late Mr. Gibson, a prominent layman in the Kentucky Conference of the United Methodist Church, was a long-time friend of Union College.

Dr. Frank A. and Mrs. Eleanor Gilbert Biology Faculty Endowment — Dr. and Mrs. Frank A. Gilbert have established a Biology Department Endowment to augment the salaries of the biology faculty. The annual supplement will be in addition to regular salaries. Dr. Gilbert is professor emeritus of biology at Union College.

Anna E. and John William Harris Memorial Fund — The late Dr. J. William Harris established a lectureship fund containing the sum of $30,000 in memory of his sister, Anna E. Harris, and his father, John William Harris.

The Kenneth G. Herrick Faculty Endowment — Kenneth G. Herrick of Tecumseh, Michigan, has established a Faculty Development Endowment at Union College. The yield from this fund will support increased faculty salaries and professional advancement for the faculty. This endowment was established in 1986.

Charles and Leona Jennings Memorial Funds — Dr. Charles M. Jennings of Marietta, Georgia, has established an endowment fund in memory of his parents, Charles and Leona Jennings, the income from which is to be used to provide an annual bonus to the head of the Department of Biology at Union College.

William Jones Endowment Fund — The late Mr. William Jones of Barbourville, Kentucky, established a fund, the income from which is designated for use by the music department to purchase recordings and musical scores.

Jeffrey Kronk Memorial Endowment — This endowment, established by the Senior Class of 1967, in memory of Jeffrey Kronk, a member of that class, will assist in purchasing books for Union College's Lincoln-Civil War Collection.

Francis Landrum Memorial Professor of Religion and Philosophy — The late Mrs. Obed J. Wilson established the Francis Landrum memorial professorship through a bequest $50,000 in 1927.

Melanie Jean Martin Trust Fund — Dr. and Mrs. O. J. Wilson, of Bowling Green, Kentucky, have established a memorial fund in memory of their granddaughter. The income from this fund is used to purchase library books to support the work of the English department.

Pearl Sinnett Meyer Memorial Fund — The Rev. Dr. Jesse I. Meyer has established an endowment fund in memory of his wife, Mrs. Pearl Sinnett Meyer. The income of this fund is designed for the purchase of books for the Union College library.

Allan Tuggle Endowment Fund — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a fund, which may be augmented from time to time, the income from which is designated for scholarships, awards, and instructional support in mathematics and physics.

Wilson-Gross Lectures — The late Dr. and Mrs. James Wilson of Floydada, Texas, established a lectureship endowment in memory of Dr. and Mrs. John Owen Gross. The purpose of the lectures is to bring annually to the campus distinguished speakers to discuss vital issues confronting the Christian student.

Colutha J. Taylor Wright Memorial Fund — The late Mr. J. S. Wright of Whitley City, Kentucky, established an endowment fund in memory of his wife, Mrs. Colutha J. Taylor Wright. The initial sum was $1,000.

Awards

Note: These awards may be presented at the annual Honors Day Convocation. Some are academic in nature; to be eligible for such awards, students' academic records should not include any grades of "incomplete." Postgraduate students are ineligible to receive these awards.

Alpha Psi Omega Award — given by Alpha Psi Omega, National Dramatics Honor Fraternity, to the junior or senior student who has made outstanding contributions to theatre at Union College over a period of years.

Bjornstad Freshman Composition Award — given by Dr. William Bjornstad, a former faculty member of Union College, and Mrs. Bjornstad, to the student achieving the highest writing excellence in freshman composition courses as determined by the English Department.

Governor James D. Black Senior Award — given by the late Mr. Pitzer D. Black of Barbourville to the senior student with the highest scholastic average for the year.

Blackwell Political Science Memorial Award — given by the late Dr. Robert Lee Blackwell to the senior majoring in history and/or political science showing the highest academic excellence in the field of political science.

Erwin S. Bradley History Award — given to an upperclass student with a major in history who has the highest scholastic average in over-all grades in history earned at Union College.

Kathy Brick Memorial Award — given by her parents, Mr. and Mrs. Theodore F. Brick of Ohio, to the student showing the highest proficiency in competitive swimming.

Calculus Award — given by a friend of the College to the student with the highest cumulative average in all three calculus courses offered at Union.

Campus Activities Board Award — given by the Campus Activities Board to the senior member who has contributed the most to the Board and to student activities at Union College during the academic year.

Campus Ministry Award — given to the senior who, by his or her actions, exemplifies selflessness and concern for the needs and well-being of others as determined by the office of Campus Ministry.

Chemical Rubber Company Freshman Chemistry Award — given by the Chemical Rubber Company Press of Boca Raton, Florida, to the outstanding freshman chemistry major.

Chemistry Department Awards — given in Analytical and Organic Chemistry by the chemistry faculty of Union College to the students who have completed those chemistry courses with the best overall average.

Dr. Theodore R. Davies Senior Biology Award — given in memory of the late Dr. Theodore R. Davies to the senior student showing the highest academic excellence in the field of biology.

Eastern Kentucky Essay Award — given by the late Dr. Kenneth H. Tuggle, a trustee of Union College, to the student writing the best essay on eastern Kentucky history.

Engineering Award — given by a friend of the College to the student with the highest cumulative average in pre-engineering courses taught at Union College.

Evans Phillips & Company Scholarship Award — given by Evans Phillips & Company, C.P.A.'s of Barbourville — an annual $500 scholarship to be awarded to the most promising freshman or sophomore accounting major. The scholarship is to be used in the fall semester. The recipient also receives a plaque and a cash award.

Dr. L.A. Geiss Computer Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the student exemplifying excellence in computer information systems.

Dr. L.A. Geiss Junior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the junior majoring in accounting with the highest cumulative standing in that field.

Dr. L.A. Geiss Senior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a Union College trustee, to the graduating senior majoring in business with the highest cumulative standing in the field.

Dr. Albert D. Graham, Jr., Social Studies Award — given by Dr. Albert D. Graham, Jr., to the senior education major who shows the greatest teaching potential in Social Studies.

Health and Physical Education Faculty Award — given by the Union College Health and Physical Education Department to the senior Health or Physical Education major with the highest cumulative academic standing.

Iota Sigma Nu Freshman Award — given by the Iota Sigma Nu Honor Society to the freshman with the highest scholastic average for the year.

Iota Sigma Nu Sophomore Award — given by the Iota Sigma Nu Honor Society to the sophomore with the highest scholastic average for the year.

H.B. Jones Business Enterprise Award — given in memory of Mr. H.B. Jones to the student who has shown initiative and enter-

prise in the field of business.

Steve Jones Memorial Award — given in memory of Steve Jones, a Union College graduate, to the Senior Varsity Letterperson with the highest cumulative academic average.

The Journalism Award — given by the English and Foreign Languages Department of Union College to the English major with journalism emphasis who has done the most to promote high journalism standards at Union College and who shows the greatest promise for success in a professional journalistic career.

The Literature Award — given by the Tuesday Club of Barbourville to the student majoring in English who shows the greatest excellence in the field of literature.

Marigold German Award — given by Dr. W. Gordon Marigold in memory of his mother, Mrs. W.J. Marigold, of Toronto, Canada, for excellence in the field of German.

Marigold Microcomputer Lab Award — given in honor of Mrs. Connie Marigold, whose assistance and enthusiasm have greatly contributed to the development of the microcomputer laboratory. This award is given to the microcomputer laboratory assistant who has best demonstrated excellence through service to students and faculty in the microcomputer laboratory.

Mathematics Award — given by a friend of the College to the graduating senior math major who has the highest cumulative average in math courses at Union College.

Military Order of World Wars Award — given by the Louisville Chapter of the Military Order of World Wars to the Military Science I or II student for outstanding leadership and academic excellence.

Dr. Mahlon A. Miller President Emeritus Award — given by Dr. and Mrs. Mahlon A. Miller to the senior with the highest cumulative average earned at Union College.

Rena Milliken Award — given in honor of Miss Rena Milliken, Professor Emeritus of Business at Union College, by the Union College Business Department to the graduating senior who shows the greatest potential for professional achievement.

Dr. Paul Muncy Memorial Award — given in memory of Dr. Paul Muncy to the senior premedical student with the highest cumulative academic standing.

Music Faculty Award — given by the Union College Department of Music and Fine Arts to a music major for his or her interest, initiative, cooperation, musical ability, academics and service to the department.

National Education Association — Student Program Award — given by the Union College Chapter of the National Education Association — Student Program to the graduating senior showing the greatest excellence in the field of education.

H.H. Owens History Award — given by the late Mrs. H.H. Owens to the student showing the greatest excellence in the field of history.

Laws and Esten Parks Award — given by Dr. S. Laws Parks, former Vice President for Business Affairs at Union College, and Mrs. Parks, to the senior religion major with the highest acumulative academic standing.

Patridge Theta Pi Delta Awards — given by the "Union Express" and **Stespean** staffs in honor of Dr. Frances Patridge, former Vice President for Student Affairs at Union College, to seniors who represent the qualities of outstanding service exhibited by Dr. Patridge.

Phoenix Award — given by the Drama and Speech faculty of Union College to the freshman or sophomore student who has contributed the most to theatre at Union College in the academic year.

Physics Award — given by a friend of the College to the student showing the greatest excellence in the general physics course taught at Union College.

Reserve Officers Association Award — given by the Kentucky Department of the Reserve Officers Association to the Military Science III student for possessing potential leadership qualities and achievements.

Sampson Political Science Award — given by the late Governor Flem D. Sampson to the junior showing the highest academic excellence in the field of political science.

William Hugh Smith Memorial Award — given in memory of the Reverend William Hugh Smith to a pre-ministerial or Christian-service student (with preference being given to a Christian-service student) who shows promise in the ministry.

Hattie Stanberry Ecology Award — given in memory of Hattie Stanberry, an alumna and

former faculty member, to the student or organization that has made a contribution to environmental improvement in the academic year. If there is no qualified candidate, the $50 stipend shall go to the College's Soccer Club, or, if there is none, it shall go to the Annual Fund.

Thomas Storrar Memorial Award — given in memory of Thomas Storrar, former director of Union College's food services, by the Circle K Fraternity to the student who exemplifies the honesty, concern, and personal commitment to the Union College community that was displayed by Mr. Storrar.

Student Activities Appropriations Committee Student Organization Achievement Award — given by the Student Activities Appropriations Committee to the campus organization which, in the committee's opinion, has contributed the most toward campus activities during the academic year.

Student Government Association Award — given to the newly elected Student Government Association President.

Student Government Association Certificate of Service Award — given by the Union College Student Government Association to a member of the Union College staff for his or her contributions to the Student Government Association during the past year.

Student Government Association Distinguished Professor Award — given by the Union College Student Government Association to a member of the Union College faculty.

Student Government Association Secretary of the Year Award — given by the Union College Student Government Association to a secretary employed by Union College. The recipient is selected by the secretaries on campus.

Katherine V. Sutphen Memorial Award — given in memory of Katherine V. Sutphen, a former faculty member of Union College, to the student who has used his or her talents best during the year in serving the Union College Music Department.

Judge W.W. Tinsley Family Memorial Award — given by the late Mrs. Mayo Tinsley Rathfon to the junior or senior preparing for a legal career showing the greatest promise of future success.

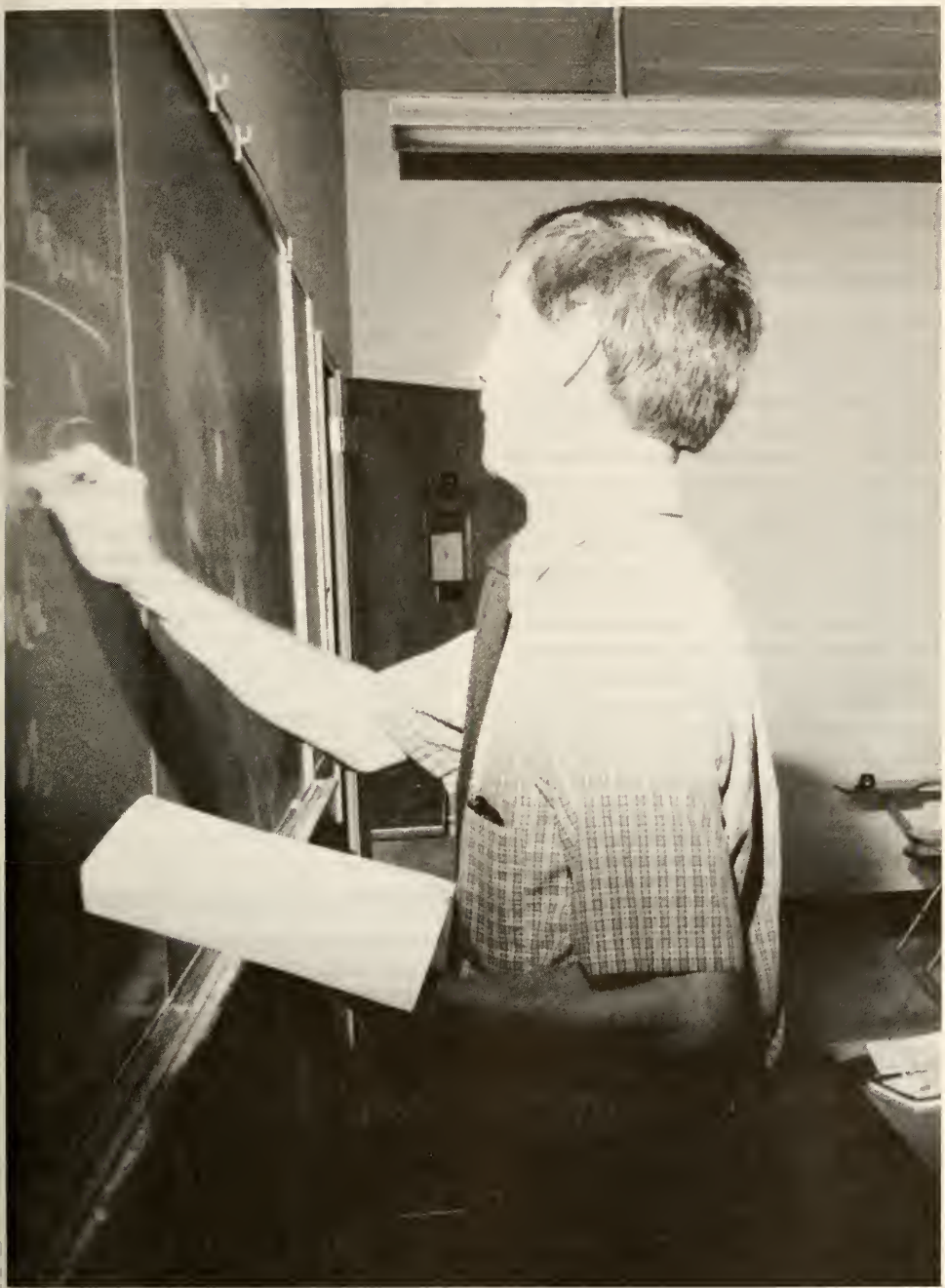
Tremco, Inc. Award — given by Tremco, Inc. of Barbourville to the junior majoring in chemistry showing the highest academic excellence as determined by the science faculty.

Beverly P. and Mossie B. Wilson Memorial Award — given by Dr. and Mrs. O.J. Wilson in memory of Dr. Wilson's parents to the English major with the highest cumulative grade point average who has completed three full years of residence at Union College.

Dr. Cecil H. Wilson Junior Award — given by Dr. Cecil H. Wilson, an alumnus and trustee of Union College, to the junior with the highest scholastic average for the year.

John Henry Wilson Sophomore Award — given by Mrs. Guy D. Atkisson, Jr., of St. Petersburg, Florida, the granddaughter of the late John Henry Wilson of Barbourville, to the sophomore from the Fifth Congressional District of Kentucky who has the highest scholastic average for the year.

Work Study Merit Awards — given by the Union College Financial Aid Office to students who are nominated by their supervisor. They should have worked in the same office at least three consecutive semesters, be making progress toward completing their present award and have a clear account.



THE ACADEMIC PROGRAM

Academic Calendar

Union College operates on a semester system. The Fall semester begins in early September and ends before Christmas. The Spring semester runs from January to early May. The college has a special three-week May interim session as well as two five-week summer terms.

Course Load

The normal undergraduate student load is sixteen semester hours per semester. Students who have an average academic standing may register for a maximum of eighteen semester hours credit per semester. Students who attain a "B" average are permitted to earn up to twenty-one semester hours per semester. Exceptions must be approved by the Vice President for Academic Affairs.

The maximum load in the May interim is three semester hours. The maximum load in each summer term is six semester hours. Students whose cumulative grade point average is "B" or better may request permission from the Vice President for Academic Affairs to take seven hours a term.

Class Attendance

1. Class attendance is required. Each student is responsible for all work from the first day of class and is expected to attend all meetings of the class for which he is registered. This is regarded as a matter of individual student responsibility.
2. All faculty members are expected to keep accurate records of class attendance.
3. Class absences due to circumstances beyond the control of the student will be excused by the teacher involved if the request is made within one week of return to campus. Class work or tests in these classes must be made up.
4. Class work and tests missed due to illness of a student can be made up only when the student presents the teacher with a valid excuse when he returns to class.
5. Class work and tests missed by the student while he is participating in an activity sponsored by Union College may be made up only when the faculty sponsor of such an activity signs the official absence list of students.

Withdrawal From Courses

A student is not automatically withdrawn when he stops attending a class. Official withdrawals are made only on forms provided by the Registrar's Office. It is the student's responsibility to complete this form, obtain the signatures needed, and return it to the Registrar's Office. Failure on the part of a student to follow this withdrawal procedure will result in a grade of "F" for the term.

Course Numbering System

Courses numbered 100 or 200 are intended primarily for lower division students and 300- and 400-level courses are generally reserved for upperclassmen. Freshmen or Sophomores desiring to enter 300- or 400-level courses should confer with the division chairperson involved for permission to enroll. 500-level courses are restricted to graduate students.

Courses with hyphenated numbers (101-102) are used when the first semester is prerequisite to the second.

Reserved Course Numbers

Some Special numbers are reserved for specific types of courses or studies. They may be used in any department although they are not shown in the following pages under the specific listings.

001-099	Non-credit special interest courses.
181, 281, 381, 481, 581	"Special Topics" courses — classes developed on a one-time or experimental basis, or a special innovative class.
282, 482, 582	Special workshops, credit or non-credit.
183, 283, 483, 583	Television courses through Kentucky Education Television Network.
184, 284, 384, 484	May interim courses not listed under a regular catalog number.

285, 485 Experiential Education — Study abroad, internships, cooperative work, experience and vocational work experience.

287, 487 Field Practicum in specialized areas.

495, 595 Independent Study — individual research on approved topics not found in traditional courses. May be repeated on different topics.

Special Notations

Each course description indicates the semester the course will be offered — (F) for Fall Semester, (S) for Spring Semester, and (Sum) for Summer Session.

Many regular year courses are offered in summer sessions but are not guaranteed offerings.

Courses indicated as being offered in "Even Years Only" are offered on an alternate year basis in academic years *beginning* with even numbers, as 1978-79 — "Odd Years Only" courses are offered on an alternate year basis in academic years *beginning* with odd numbers, as 1979-80.

Students should consult regularly with their advisors to ensure proper progress toward their degree. During the last semester of the sophomore year, a final planned curriculum is prepared which constitutes a contract for the courses remaining to be completed in order to earn the degree. It is the student's responsibility to initiate the process of developing the planned curriculum.

The Grading System and Quality Points

Marks are reported in letters as follows:

A — Represents distinctly superior work, valued at four quality points for each semester hour.

B — Represents above average work, valued at three quality points for each semester hour.

C — Represents average work, valued at two quality points for each semester hour.

Cr — Indicates that a course has been passed satisfactorily.

D — Represents inferior but passing work, valued at one quality point.

F — Indicates failure with 0 credits and 0 quality points for each semester hour or failure to officially withdraw from a course.

W — Indicates that a student withdrew during the first 12 weeks of the semester.

I — Indicates that in the opinion of the instructor the student has not been able to complete the required work of the course on time due to unavoidable circumstances.

NP — Indicates No Grade Posted — For Developmental Studies courses only.

An "I" received at the end of any semester must be removed before the end of the next semester if the student is enrolled for that term. If the student is not enrolled, the "I" must be removed before the end of the 12 month period following the date on which the "I" was received. Any exceptions to the time limit must be made by agreement of the instructor, division chairperson, and Registrar. If an "I" is not removed within that time limit, it remains on the permanent record and cannot be made up.

Quality Point Standing

The quality point standing of a student is determined by dividing the total quality points which he has earned by the total number of semester hours for which he has registered minus the number of hours of Credit and Incomplete on his record.

Credit/Fail Option

The purpose of the Credit/Fail option is to provide the opportunity for students to explore elective courses outside their area, major, or minor without engaging in competition with students specializing in those subjects and without jeopardizing their grade point average.

This option excludes all courses in the Liberal Education Core and any area, major, or minor course. It is available only to those students with at least sophomore classification and those maintaining a 2.0 grade point aver-

age. This option is also available to transfer students of sophomore classification and who have completed at least twelve hours of satisfactory work at Union College.

No more than fifteen semester hours may be applied toward graduation with a Bachelor's degree, no more than two courses per academic year (July through June), and only two courses in any single discipline. No more than nine hours may be applied toward graduation with an Associate degree.

A student must apply in the Registrar's Office for the Credit/Fail option by the last date identified in the current academic calendar to withdraw from a course with a grade of "W". It is a matter between the Office of the Registrar and the student. The information is not available to instructors except when the student communicates the same to the instructor. A grade of "D" or above will be recorded as CR and an "F" will be recorded as such.

Examinations and Reports of Marks

Examinations are held at the close of each semester. Tests are held at such times during each semester as the instructors may determine. Mid-semester and semester grades are reported by the instructors to the Registrar. Mid-semester grades are mailed to students' advisors as soon as possible, and students are urged to obtain these grades from their advisors. Where permission to mail grades to parents has been given, grades of students receiving a grade of "D" or "F" at mid-semester will be mailed to home addresses ten days after classes resume following the mid-semester break. Copies of final semester grades are given to students and, where permission has been granted, mailed to parents. Only final grades become a part of a student's permanent record.

Grade Appeal

Students are entitled to redress any grievances relative to grades. Please refer to the student handbook or contact the Office of Academic Affairs.

Honor Students

Union College recognizes excellent scholarship in three ways: The Dean's List, the Presidential Laureates, and graduation with honors.

The Dean's List is comprised of those students who have completed at least 12 hours of graded work with a 3.25 grade point average and no grades of "I" for the semester. This list is published after the fall and spring semesters.

Presidential Laureates are those students who meet all requirements for the Dean's List and achieve at least a 3.75 grade point average for two successive semesters with at least 12 hours of graded work and no grades of "I" in each semester. The two summer sessions may be counted as one of these semesters if the minimum hours have been earned. The list of students designated as Presidential Laureates is published after the fall and spring semester.

Appropriate certificates are given in recognition of both of these achievements, and graduation honors are noted on the diplomas of those receiving degrees with distinction (described on page 35 of this catalog).

Probation

Students falling below the following grade point average and corresponding minimum semester hours will be placed on Academic Probation:

Freshmen	1.80
Sophomores (32 hours)	1.90
Juniors (64 hours)	2.00
Seniors (96 hours)	2.00

Probationary students are closely monitored by the Academic Standing Committee of the College. Students who are on academic probation may be restricted as to course taken, be required to repeat courses in which low grades have been earned, lose Union College financial aid, or be suspended from the College.

Academic Amnesty

Students having received a grade point average (GPA) of less than 2.0 in a semester may apply once only to the Registrar for academic amnesty after having completed two consecutive semesters of 12 hours with a minimum GPA of 2.0. Twelve semester hours earned during the summer terms may be counted as

one semester. Course titles and grades remain as previously recorded on the academic record. Credit will be given for courses with grades of "C" or higher. None of the grades in the semester for which academic amnesty is granted will be used in calculating the GPA. Transfer students bringing less than a 2.0 GPA or having received any form of academic amnesty at another institution do not quality for any amnesty option at Union. Students who receive amnesty will not be eligible for academic honors based on cumulative GPA.

Students who have been out of school for two years or less may be readmitted on a conditional basis and apply for academic amnesty after completing two consecutive semesters of satisfactory (2.0) work. Students who have been out of school more than two years will be treated as transfer students.

College-Level Examination Program (CLEP)

Union College is a regional testing center for the College-Level Examination Program (CLEP). The CLEP tests provide college credit for material students have mastered through self-study or non-accredited classes. There are five general exams and 30 subject area exams. As an Open Testing Center, Union College administers CLEP exams the second week of each month.

By passing the CLEP examinations, degree-seeking students enrolled at Union College can earn up to 30 semester hours of credit toward a four-year program; 15 hours may be earned toward a two-year program. High school special students, and other special students, are not eligible. Credit may not be earned, through CLEP, for courses required for teacher certification by the Kentucky Department of Education. CLEP should not be utilized to make up a failed course.

Exams in the general battery must be taken before the student achieves sophomore status. Further information is available in the Office of Special Programs.

Credit By Examination

1. The student will apply for credit by examination at the appropriate Division Chairperson's office. An initial screening interview will be conducted and the division chairperson and appropriate faculty member will be consulted to determine if an evaluation seems feasible.
2. If an evaluation is feasible, the student will take a completed application form to the faculty member and arrange for an evaluation date. The faculty member will prepare an evaluation procedure, carry out the evaluation, and report the results to the appropriate Division Chairperson.
3. Reported results will include a recommendation as to whether or not credit should be awarded and a description of the evaluation procedure and student performance. This material will be maintained on file in the Instructor's Office.
4. The recommendation and evaluation description will be forwarded to the division chairperson or a designated representative for review. If the division representative does not concur, the faculty member, designated representative (if there is one), and the division chairperson will meet with the Vice President for Academic Affairs to seek a resolution.
5. Successful completion of a challenge examination will be reported to the Registrar by the Instructor and will be recorded as "Credit" on the transcript. An unsuccessful challenge will not be recorded.
6. Students enrolled in a course may request a challenge examination only within the period when a new course may be added.
7. Challenge examinations may not be used for developmental courses, to repeat a course, or remove an "F" from the transcript.

Independent Study and Experiential Education

Union offers to qualified students the opportunity to work independently to earn credit for graduation. This option is reserved primarily for Junior and Senior students who have indicated the academic maturity to be able to accomplish the requirements of the course.

Registration for either of these options is during the designated time period for regis-

tration of other courses. Deadlines for adding courses should be adhered to for Independent Study and Experiential Education. Forms can be obtained from the Registrar's Office, Division Chairperson's Office, or the Vice President for Academic Affairs' Office.

Transfer and Correspondence

Any student planning to graduate from Union College must receive permission from the Registrar to register for correspondence courses. Credits cannot be recorded unless prior arrangements are made.

Students enrolled for a full-time program of study shall defer work on all correspondence courses during the term for which they are registered.

Not more than twelve semester hours of correspondence work done in one academic year will be accepted by the College. Not more than one-fourth of the courses in a major may be completed by correspondence. Not more than thirty-two semester hours of correspondence credit will be accepted toward a degree.

Not more than six semester hours of correspondence may be accepted during the senior year. Students with sixty semester hours or fewer at Union may offer six semester hours non-residence in the last thirty-six; students with sixty-one semester hours or more may offer six semester hours out of the last twenty-four.

Failure or quality point deficiencies in any course done in residence cannot be removed by transfer credit, correspondence or Independent Study.

Graduating seniors must complete any correspondence work needed for graduation at least four weeks before the date of Commencement.

Graduation Requirements

Requirements for Graduation — Bachelor Degrees — Arts, Music, and Science.

The candidates must satisfy the following requirements:

1. Minimum of 128 semester hours. Thirty of the last thirty-six must be earned in residence at Union College. Students who have earned as many as sixty-one semester hours at Union College may graduate with only eighteen of the last twenty-four hours earned in residence. At least forty semester hours must be in courses numbered 300 or above.
2. Quality point standing of 2.00 overall and at Union, and in all courses taken in the major or minor fields.
3. Completion of the Liberal Education Core.
4. The equivalent of 12 semester hours of a single foreign language not native to the student is required for the Bachelor of Arts Degree. Equivalency shall be determined by the successful completion of the fourth college course of the language. Students with prior training in that language at the high-school level may be eligible for advanced placement in the sequence of courses and meet the requirement with fewer than twelve credit hours.

   Religion majors may substitute a year of Hebrew and a year of Greek for the language requirement for the Bachelor of Arts degree.
5. For the Bachelor of Science degree the student must meet all graduation requirements, including a major or area. A foreign language may or may not be required as determined by the individual discipline.
6. Completion of either:
   a. A major as determined by the faculty of the individual discipline.

      Majors are offered in Accounting; Biology; Business Administration; Business Education; Chemistry; Christian Education; Church Music; Computer Information Systems; Drama; Drama and Speech; Elementary Education; English; History; Mathematics; Middle School Education; Music; Music and Business; Music Education; Office Administration; Physical Education; Physics; Psychology; Religion; Secondary Education; Sociology.

      Minors are offered in Accounting; Applachian Studies; Biology; Business Administration; Chemistry;

Computer Information Systems; Drama; Drama and Speech; Economics; English; Environmental Studies; Health Education; History; Mathematics; Music; Office Administration; Philosophy; Physics; Psychology; Religion; Sociology.

b. An area, the structure of which is determined by the faculty of the Division in which the area requirements are met.

Areas are offered in Business; English; Journalism; Science; and Social Studies.

7. At least forty semester hours offered for graduation must be earned in junior and senior courses (300 or above); at least six semester hours 300 and above, earned at Union, must be included in any twenty-four hour major; at least twelve semester hours 300 and above (evenly distributed in the two fields if this is a combined major), earned at Union, must be included in a thirty-hour major; at least eighteen semester hours 300 and above earned at Union must be included in an area.
8. At registration each senior must specify the tentative date on which he expects to graduate.
9. Advice in arranging schedules and choosing courses is always given gladly; however, each student is responsible for completing all requirements.

Associate Degree — see specific program requirements

Combined Degrees

The bachelor degrees may be granted to students who have completed three years of work at Union College and one year of work in an accredited professional school with the following provisions:

1. The work in the professional school must continue the curriculum in which the student has been enrolled at Union College (pre-law, pre-dentistry, pre-medicine, etc.)
2. The student must have completed satisfactorily the minimum requirements for three years of pre-professional work at Union College (ninety-six semester hours with a quality-point standing of at least 2.00) and also the general college requirements for graduation, including the foreign language requirement if a B.A. is desired.
3. The student must have completed satisfactorily the minimum requirements for one year of study at the accredited professional school in which he is enrolled. The number of credits at the end of the four years of study must total at least 128 semester hours.

Degrees with Distinction

Honors in Scholarship are recorded on the diplomas of the students earning them. There are three grades of honors designated respectively: *cum laude, magna cum laude,* and *summa cum laude.* These honors are conferred at graduation upon students who satisfy the following conditions of scholarship:

The honor of *cum laude* is awarded to those students who have earned an average standing of 3.5 overall and at Union.

The honor of *magna cum laude* is awarded to the students who have earned an average standing of 3.75 overall and at Union.

The honor of *suma cum laude* is awarded to those students who have earned an average standing of 3.9 overall and at Union.

Students coming from other colleges may receive honors on completing 61 semester hours of resident study and satisfying the conditions of the scholarship prescribed by the faculty, provided they also furnish such evidence of high scholarship in the institution from which they come as may, in the judgment of the faculty, entitle them to become candidates for honors under the regulations.

As a reward for excellence in scholarship and to promote diligence in study and encourage high ideals, the honorary scholastic fraternity of Iota Sigma Nu was founded on May 26, 1936. Membership is open upon election to:

(a) All who have met the requirements for graduation with honors.

(b) All students who have at least 74 hours with a 3.2 quality point standing or 100

hours with a 3.0 quality point standing and who have completed a minimum of two years (64 semester hours) in resi dence at Union College.

ACADEMIC SERVICES

Career Planning, Academic Advising, and Placement Services

Upon Admission to Union College, students will begin a process whereby career planners and faculty advisors assist them to articulate their career goals, to select academic courses of study appropriate to those goals, and to achieve suitable placement upon completion of their studies. A student should therefore be assured of a smooth transition from high school to the academic environment of Union College with the appropriate services available throughout the student's college days and afterwards.

Undecided Majors

Students who have not made a vocational or professional choice will be assigned an advisor. Once a choice is made, the student will be reassigned to a faculty advisor in the appropriate discipline.

Planned Curriculum

During the last semester of the sophomore year, a planned curriculum will be developed by the student's advisor and the Office of the Registrar at the student's request. This is an agreement between the College and the student. Once the curriculum has been completed only changes approved by the Registrar are binding on the College.

Learning Lab

The Learning Lab offers assistance to students in most freshmen and sophomore level courses. Tutoring is done by trained peer tutors, selected through faculty recommendation, superior academic achievement and personal interviews. Computer assisted instruction is also available in English mechanics and mathematics and in preparing for the various professional examinations. Students should request help as soon as they experience difficulty in a class. There is no fee fo using the Learning Lab.

For more information on academic advise ment, special services, and counseling, cor tact the Director of Special Programs.

Microcomputer Laboratories

The College has two microcomputer labo ratories for student and faculty use. One i located in the Mahlon Miller Science Cente and contains seven Apple II's. The other is i Centennial Hall Classroom Building and cor tains thirteen Radio Shack computers an sixteen IBM compatible computers; thi laboratory also contains terminals connecte to the College's minicomputers. The labora tories are staffed by student laborator assistants and are open approximately sixt hours each week, primarily during weekda afternoons and evenings.

Additional microcomputers are availabl for use in tutoring and remedial instruction

Developmental Studies

The Developmental Studies Program i designed to help students become more suc cessful in their college studies. Through thi program Union College has recognized tha each entering student has different strength and weaknesses. **It is the sum total of thes strengths and weaknesses that leads to eithe success or failure in college study.** Some o the common weaknesses are in reading, writ ing, and math skills, as well as in persona skills such as time management, goal setting and decision making.

The College has developed mandator courses for students who score

1. below 80% on the English Placemer Test,
2. below 80% on the Math Placement Tes
3. below 10th grade on the Nelson-Denn Reading Test,
4. below 12 on the ACT.

Students with composite scores of below 20 on the ACT or 900 on the verbal and quantitative sections of the SAT are required to take these placement tests before being assigned an advisor and registering for classes.

Students who are not required to take the developmental courses listed below may elect to take one or more of them after consultation with their academic advisor.

The mandatory courses include the following four courses, each carrying 3 semester hours of credit:

1. **English 110** — is designed to provide training in college-level language skills and to prepare students for English 111 and other introductory courses.
2. **Mathematics 100** — is intended for students who need to improve their arithmetic and elementary algebra skills prior to taking other mathematics courses or courses requiring quantitative reasoning. The course includes a brief review of whole number arithmetic (particularly prime factorization, exponents, and perfect squares), and extensive review of fractions, decimals ratio and proportion, percent, and an introduction to algebra (including arithmetic in integers, algebraic expressions, and linear equations.)
3. **General Studies 101** — is designed to help students increase their reading level to more effectively handle the reading loads required in college. The student's reading level will be evaluated thoroughly to determine the entry level.
4. **General Studies 102** — is designed to increase students' academic and personal confidence through two components. The first will aid students to improve their study and time-management abilities. The second will present decision-making skills that will enable students to clarify their goals, values and interests, allowing them to make effective decisions throughout their life.

Community Education

Community Education at Union College provides courses and workshops that satisfy a wide range of educational needs for adults. These courses provide an opportunity to study a variety of subjects for personal enrichment, to acquire skills for career advancement, or to enjoy cultural and leisure activities. Community Education emphasizes learning as a lifelong experience. The close student-to-instructor rapport that charcterizes Union College adds an exciting dimension to this learning experience. Community Education attempts to meet the special educational needs of adults through a variety of forums, e.g., short courses (including Elderhostel), seminars, workshops, and conferences. The program also provides opportunities for students to earn continuing education credits and college credit for telecourses available through Kentucky Educational Television.

Adult Education

The adult education program includes the Adult Basic Education unit and the JTPA (Job Training Partnership Act) unit which Union College sponsors in conjunction with the Kentucky Department of Education. These programs enable adults who have not received their high school diplomas to prepare for the GED. In addition, Union College co-sponsors the Adult Literacy program with the Kentucky Literacy Commission.

Library and Learning Resource Center

The Abigail E. Weeks Memorial Library houses a collection of approximately 80,000 books and other materials in a newly expanded facility. More than 350 periodicals are regularly received, along with indexing services to facilitate their use. The stacks are open for use by all students. There are a variety of study spaces providing seating for over 300 students, some in rooms designed for group study. The Library staff places first priority on helping students use both the materials and the equipment.

The College's library contains several specialized collections. There is a special collection of over 1,000 volumes devoted to Abraham Lincoln and the Civil War. The Library is also a selective depository for U.S. government publications. In addition, there is a Curriculum Center for education majors, a Music Library with a collection of more than 3,500 recordings and musical scores, and a Science Library.

The Learning Resource Center is housed within the Library and supplements the printed materials of the Library with a broad range of non-print media. This includes slides, audiotapes, videotapes, filmstrips, kits, and computer software. The LRC provides educational materials for classroom use and individualized study. The LRC staff offers individual or group instruction to students and faculty in the use of equipment and materials

CURRICULUM

MAJORS AND DEGREE PROGRAMS

A college major is actually a means to an end — the means by which a student prepares for a future career, entrance into graduate school, or some change in life style. Union College offers a wide range of majors and minors, as part of the Bachelor's degree and a number of certificate and 2-year Associate degree programs for those not needing a full 4-year degree.

DEGREE AREA	BA/BM/BS Major	BA/BS Minor	Assoc. Degree	Certificate	Program
Accounting	•	•	•		
Business Administration	•	•	•		
Business and Music	•				
Business Education	•				
Computer Info. Systems	•	•	•	•	
Economics		•			
Medical Secretarial Admin.			•		
Office Administration	•	•	•	•	
Elementary Education	•		•		
Middle Grades Education	•				
Secondary Education	•				
Health Education	•	•			
Physical Education	•				
English	•	•			
Journalism					•
Drama	•	•			
Drama and Speech	•	•			
Church Music	•				
Music	•	•			
Music and Business	•				
Music Education	•				
Christian Education	•				
Philosophy		•			
Religion	•	•			
Appalachian Semester				•	
Appalachian Studies		•			
History	•	•			
Psychology	•	•			
Sociology	•	•			
Biology	•	•			
Chemistry	•	•			
Environmental Studies		•			
Mathematics	•	•			
Medical Technology					•
Physics	•	•			
Pre-Dentistry					•
Pre-Engineering					•
Pre-Medicine					•
Pre-Optometry					•
Pre-Pharmacy					•
Pre-Physical Therapy					•
Pre-Veterinary Medicine					•
Science Education			•		

GRADUATE, COOPERATIVE, AND INTERDISCIPLINARY PROGRAMS

Graduate Program in Education

Union College offers a unique graduate program designed for in-service teachers in the public schools. The College grants the 5th year certificate for Kentucky teachers, the M.A. degree in Education in the following areas: reading specialist, elementary education, middle school education, gifted education, kindergarten education, and secondary education with emphasis in either health, history, science, social science, psychology or sociology.

Work beyond the Masters level leading to certification as an elementary or secondary school principal, supervisor of instruction, director of pupil personnel as well as Rank I (30 hours beyond M.A.) is available. Many courses are offered off-campus.

Qualified holders of the Bachelor's degree should contact the Dean of Graduate Academic Affairs for brochures, catalogs, and information about the graduate program.

Cooperative Programs Bellarmine College (Nursing)

A cooperative arrangement between Union College and Bellarmine College provides registered nurses from the eastern Kentucky area an opportunity to pursue a bachelor's degree in nursing at Union College. Selected liberal arts and elective courses are taught by Union College faculty; professional nursing courses are taught by Bellarmine College faculty on the Union College campus (or nearby facilities). Clinical experiences are offered in the area.

The B.S.N. Degree is conferred by Bellarmine College. This program offers the registered nurse an opportunity to receive a B.S.N. without leaving eastern Kentucky. Estimated completion time for the program is four years on a part-time basis.

Interested persons should file Union College and Bellarmine applications. An official transcript and a copy of the RN license should accompany the application to Bellarmine. Students must meet the general standards of both Colleges.

For more information, contact the Admissions Office at Bellarmine College at 1-800-633-5114.

Sue Bennett College

Union College also has a cooperative agreement with Sue Bennett College, a private two year United Methodist College located in London, Kentucky (25 miles from Union's campus). Under the agreement, Union offers junior, senior, and graduate level courses in education and business on the Sue Bennett campus. This agreement also facilitates the articulation of transfer credit and provides scholarships for qualified Sue Bennett students who transfer to Union.

Army ROTC

This is a program which provides college trained officers for the Regular United States Army, U.S. Army Reserve and U.S. Army National Guard. Union College offers both the Basic and Advanced courses to qualified students. This program is affiliated with Eastern Kentucky University Army ROTC and specific information can be obtained by making an appointment with the ROTC Representative located on the second floor of the Physical Education Building. (See Applied Science Division for curriculum.)

Pre-Professional Programs

Union College offers several pre-professional programs that are affiliated with other institutions and agencies. These include Dentistry, Engineering, Medical Technology, Medicine, Optometry, Pharmacy, Physical Therapy, and Veterinary Medicine. College personnel are available in the Natural Science Division to advise and counsel students who are interested in these programs. More specific information can be obtained in the Natural Science Division section of this catalog.

Appalachian Studies

Reflecting the College's primary mission of improving the quality of life of the Appala-

chian people, Union offers a multi-faceted Appalachian Studies Program. One or more components of the program should be of interest to all students. The program seeks to develop an appreciation of the people, culture, and socio-economic conditions of the mountain area; to provide opportunities for direct service, research and personal experience in the region; to provide the skills and critical understanding needed to work in this area; and to help the student develop an understanding of himself and others.

The program at present consists of the Appalachian Semester outlined in detail below, and of various academic courses, identified in appropriate departmental and division course listings. The student will find an interdisciplinary approach to the history, politics, music, natural resources, economics, and other aspects of the region, which will stand him in good stead no matter where he or she may live later.

Appalachian Semester

The Appalachian Semester, which is operated during the fall semester, is a unique interdisciplinary academic program in which mature second semester sophomore, junior, and senior students from Union College and other institutions throughout the United States devote their full time to studying the Appalachian region — its strengths, prob lems and challenges. Students earn a total o fifteen semester hours of academic credit Nine hours of credit are offered in sociology at the upper division level, and six hours are offered at either the lower or upper division level for field work in a variety of disciplines Field work may be either experiential learning of a regional nature in a local service agency or other institutional setting, or it may be directed study in the region at large. The program is designed to combine interdisciplinary classroom experiences and on-the scene community experiences into a "living learning" situation where total involvement o students and faculty may take place.

Opportunities are provided to discuss the local and regional leaders assets and prob lems of the region, and field trips are coordinated with seminar discussions in order to involve participants on the spot with curren regional issues. Following an orientation o approximately four weeks, students leave the campus and learn through independen study or work in a variety of private and publi service settings.

Course descriptions are included in the curriculum section of this catalog. Detailed information and application forms are available from the Coordinator, Appalachian Semester, Union College.

THE LIBERAL EDUCATION CORE

I. BASIC COMPETENCIES **12-13 hrs.**

A. FRESHMAN COMPOSITION 6 hrs.
ENGL 111 Freshman Composition I 3
ENGL 112 Freshman Composition and Literature 3

B. MATHEMATICS 3-4 hrs.
BHSC 245 Basic Statistics: Theory and Application 3
MATH 108 Intermediate Algebra 3
MATH 111 College Algebra & Trigonometry 4
MATH 203 Structure of the Number System 3

C. PHYSICAL WELL BEING 3 hrs.
HLTH 131 First Aid & Safety Education 3
HLTH 270 Personal & Community Health 3
or
Three Physical Education Activity Courses 3

II. HUMANITIES **12-13 hrs.**

A. LITERATURE 3 hrs.
ENGL 212 Western Literature 3

B. FINE ARTS APPRECIATION 3-4 hrs.
ART 132 Introduction to Art 3
ART 273 Art History 3
DRAM 131 Introduction to the Theatre 3
MUSIC 121 Introduction to Music 3
MUSIC 161 or 162 Foundations of Music 4

C. LITERATURE/FINE ARTS ELECTIVE 3 hrs.
An additional course from B above or one of:
ENGL 221-222 Survey of English Literature 3
ENGL 241-242 Major American Writers 3

D. RELIGION AND PHILOSOPHY 3 hrs.
PHIL 151 Introduction to Philosophy 3
RLGN 111 Old Testament History, Literature & Interpretation 3
RLGN 112 New Testament History, Literature & Interpretation 3
RLGN 131 World Religions 3

III. HISTORY, SOCIAL & BEHAVIORAL SCIENCES **9 hrs.**

A. WORLD HISTORY 3 hrs.
HIST 111 World History to 1500 3

B. HISTORY ELECTIVE 3 hrs.
HIST 112 World History since 1500 3
HIST 201 U.S. History to 1865 3
HIST 202 U.S. History since 1865 3

C. SOCIAL SCIENCE — STRUCTURE ELECTIVE 3 hrs.
ANTH 221 Introduction to Cultural Anthropology 3
ECON 153 Principles of Economics I 3
GEOG 101 Introduction to Geography 3
PLSC 101 American National Government 3
PSYH 111 Introduction to Psychology 3
SOCI 131 Introduction to Sociology 3

IV. NATURAL SCIENCES **7-8 hrs.**

Choose two courses from areas A, B, or C; each of the courses must be in a separate area and one must include a lab.

A. BIOLOGICAL SCIENCE 3-4 hrs.
- BIOL 109 Elements of Biology 3
- BIOL 111 Introduction to Biology 4

B. PHYSICAL SCIENCE 3 hrs.
- CHEM 111 General Chemistry 3
- PHYS 111 Elements of General Physics 3
- PHYS 112 Elements of General Physics 3

C. ENVIRONMENTAL/EARTH SCIENCE 3-4 hrs.
- ENVS 101 Man & the Environment 3
- ENVS 110 Physical Systems of the Environment 4
- PHYS 105 Astronomy 4

D. LABORATORY EXPERIENCE 1 hr.

If not already included with a course in A, B, or C above.
- BIOL 110 Elements of Biology Laboratory ..... 1 (BIOL 109)
- CHEM 131 General Chemistry Laboratory ..... 1 (CHEM 111)
- PHYS 113 Elements of General Physics Laboratory ..... 1 (PHYS 111)
- PHYS 114 Elements of General Physics Laboratory ..... 1 (PHYS 112)

V. COMPLETION OF CORE **6-7 hrs.**

Select a course from two of the following 3 areas.

A. COMMUNICATIONS/LANGUAGES 3 hrs.
- FREN 111 or 112 Elementary French 3
- GRMN 111 or 112 Elementary German 3
- SPAN 111 or 112 Elementary Spanish 3
- SPCH 131 Fundamentals of Speech 3
- SPCH 231 Oral Interpretation of Literature 3

B. SOCIAL SCIENCE — PROBLEMS ELECTIVES 3 hrs.
- ECON 154 Principles of Economics II 3
- GEOG 241 Geography of Appalachia 3
- HIST 233 History of Appalachia 3
- PLSC 231 International Politics 3
- SOCI 241 Sociology of Appalachia 3
- SOCI 251 Current Socio-Economic Problems 3
- SOCI 271 Marriage & the Family 3

C. NATURAL SCIENCE 3-4 hrs.

Select a course from the Natural Science Division that is in a discipline (Biology, Chemistry, Environmental Studies, Physics) not already used to satisfy Section IV.

Students are expected to complete this core during their Freshman-Sophomore years. Some majors such as education require specific courses. Consult your advisor.

ACADEMIC DIVISIONS

DIVISION OF APPLIED SCIENCE

William Bernhardt, *Chairperson*
Department of Business Department of Education
Department of Health & Physical Education
Military Science (ROTC Program)

I. DEPARTMENT OF BUSINESS

Allen Engle, *Department Head*
Accounting — Business Administration — Business Education
Computer Information Systems — Economics — Office Administration

BACHELOR OF SCIENCE DEGREES IN BUSINESS

In addition to the general college requirements, all candidates for the Bachelor's degree must complete the following courses in one of the major fields listed below. Students with a major or minor in Business must have a 2.0 average for all courses in each major or minor. (Students who choose to complete the foreign language requirement may elect to receive a Bachelor of Arts degree.)

Common Courses Required of All Candidates		*Semester Hours*
ACTG 271, 272	Principles of Accounting I & II	6
BUAD 311 or 312	Business Law	3
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153, 154	Principles of Economics I & II	6
		27

and, as applicable:

Accounting Major		*Semester Hours*
ACTG 331	Cost Accounting	3
ACTG 371, 372	Intermediate Accounting I & II	6
ACTG 376	Tax Accounting	3
ACTG 430	Accounting Theory	3
ACTG 433	Auditing	3
ACTG 471	Advanced Accounting	3
BUAD 311 or 312	Business Law (in addition to core requirement)	3
COMP 221	Business Application Programming I	3
or		
COMP 235	RPG Programming	3
OFAD 302	Business Communications	3
		30

Business Administration Major		*Semester Hours*
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 372	Personnel Management	3
BUAD 451	Business Policy	3
COMP 221	Business Application Programming I	3
or		
COMP 231	BASIC Programming	3
or		
COMP 235	RPG Programming	3
OFAD 302	Business Communication	3
	Electives from the Department of Business	12
		27

Computer Information Systems Major		*Semester Hours*
BHSC 245	Basic Statistics: Theory and Application	3
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
COMP 332	Structured Systems Design	3
COMP 425	Applied Software Development Project	3
COMP 441	Data Bases	3
	Computer Elective (200 level)	2 or 3
	Computer Elective (300 or 400 level)	3
MATH 108, 111 or 241	Mathematics Course	3 or 4
And one of:		
OFAD 301 or	Business English: Theory and Application	
PHYS 111 and 113 or	Elements of General Physics (with lab)	
PHYS 211 and 213	General Physics (with lab)	3 or 4
		32-35

Office Administration Major		*Semester Hours*
ACTG 170	The Accounting Cycle	3
BUED 331	Office Practice	4
OFAD 112	Intermediate Typewriting	3
OFAD 122	Intermediate Shorthand	3
OFAD 211	Advanced Typewriting	3
OFAD 301	Business English: Theory and Applications	3
OFAD 302	Business Communication	3
OFAD 361	Office Management	3
	Elective from the Department of Business	3
		28

Business and Music Major		*Semester Hours*
BUAD 272	Salesmanship	3
MUSC 161, 162	Foundations of Music	8
MUSC 261, 262	Harmony	6
MUSC 111-412	Applied Music	8
MUSC 322	Music History	3
MUSC 171, 172, 173, 175, 176	String, Woodwind, Piano, Brass and Percussion Class (Choice of any 3)	3
OFAD 302	Business Communication	3
	Upper division business elective	3
	Field Placement	3-10
		40-47

BACHELOR OF SCIENCE DEGREE IN BUSINESS EDUCATION

Students should see the Education Department section for Certification Requirements.

Teaching Major in Basic Business		*Semester Hours*
ACTG 271, 272	Principles of Accounting I & II	6
BUAD 311 or 312	Business Law	3
BUAD 352	Principles of Management	3
BUED 331	Office Practice or Office Internship	3
BUED 362	Methods of Teaching Basic Business Subjects	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 302	Business Communication	3
		33

Teaching Major in Secretarial Skills		*Semester Hours*
ACTG 271 or 272	Principles of Accounting I or II	3
BUED 331	Office Practice or Office Internship	3
BUED 361	Methods of Teaching Secretarial Business Subjects	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics I or II	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 302	Business Communication	3
	Business Elective	3
		33

For endorsements in other business subjects, see the head of the Education Department.

ASSOCIATE OF APPLIED SCIENCE DEGREES IN BUSINESS

The following two-year programs lead to the award of the A.A.S. degrees in the emphasis indicated. Union College provides a "career ladder" approach to learning in that students who complete these degrees may immediately apply the earned on the two-year degree toward a Bachelor's degree, or return to college later with guarantee that the credits previously earned at Union will apply toward the 4-year degree.

Common Courses Required of All Candidates		*Semester Hours*
ACTG 271	Principles of Accounting I	3
BUED 105	Mathematics Applied to Business	1
COMP 105	Introduction to Microcomputer Packages	2
COMP 131	Introduction to Computer Information Systems	3
ECON 153	Principles of Economics I	3
ENGL 111	Freshman Composition I	3
ENGL 112	Freshman Composition and Literature	3
OFAD 302	Business Communication	3
	Humanities General Requirement	9
	Social Science General Requirement	3
		33

and, as applicable

Accounting Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 311 or 312	Business Law	3
ECON 154	Principles of Economics II	3
	Accounting Electives	9
	Natural Science General Requirement	4
	Free (Non-Business) Electives	6
		31

Business Administration Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
BUAD 311 or 312	Business Law	3
ECON 154	Principles of Economics II	3
OFAD 111	Elementary Typewriting (or equivalent)	3
	Natural Science General Requirement	4
	Business Electives	9
	Free (Non-Business) Electives	6
		31

Computer Information Systems Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
BHSC 245	Basic Statistics: Theory and Application	3
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
ECON 154	Principles of Economics II	3
MATH 108, 111 or 241	Mathematics Course	3 or 4
OFAD 105	Keyboarding	1
	Computer Elective (200 level)	2 or 3
	Computer Elective (300 or 400 level)	3
	Free Electives	5
		32-34

Medical Secretarial Administration Emphasis (AAS)		*Semester Hours*
BIOL 151	Medical Terminology	2
BUED 331	Office Practice	4
HLTH 131	First Aid & Safety	3
HLTH 270	Personal & Community Health	3
HLTH 340	Anatomy & Physiology	4
OFAD 111, 112	Beginning & Intermediate Typewriting	6
OFAD 121, 122	Elementary & Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
		31

Office Administration Emphasis (AAS)		*Semester Hours*
ACTG 170	The Accounting Cycle	3
BUED 331	Office Practice	4
OFAD 111, 112	Elementary & Intermediate Typewriting	6
OFAD 121, 122	Elementary & Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
	Natural Science General Requirement	4
	Free Electives	5
		31

Diploma in Office Administration (One-Year Program)		Semester Hours
ACTG 271	Principles of Accounting I	3
BUAD 151	Introduction to Business	3
BUED 331	Office Practice	4
ENGL 111	Freshman Composition I	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 301 or	Business English: Theory and Applications	
OFAD 302	Business Communication	3
	Elective	4
		32

MINORS AVAILABLE TO ALL STUDENTS

Accounting — Twenty-one semester hours in Accounting at 200 level and above.

Business Administration — Accounting 271-272, Business Administration 311 and 352. Computer Information Systems 131, Economics 153, and three hours of Business electives.

Computer Information Systems — Twenty-one semester hours consisting of the following: Accounting 271, Computer Information Systems 221, 222, 331, two additional Computer Information Systems courses (one numbered 200 or above and one numbered 300 or above), and one additional course from Accounting 272, Business Administration 311, 312, 352, Economics 153, 154 or Office Administration 301.

Economics — Twenty-one semester hours consisting of the following: Economics 153, 154, 363; Behavioral Sciences 245; Business Education 353; Business Administration 351; and History 241 or Economics 251.

Office Administration — Twenty-one semester hours including Office Administration 112, 122, 301, 361, Business Education 331, and six hours of Office Administration electives.

ACCOUNTING

Accounting 170. The Accounting Cycle. **(S)(3)**
This course is designed for students who have not studied accounting in high school or who need basic remedial studies in accounting. Subjects covered include journalizing, posting, worksheets, adjusting and closing entries. No prerequisites.

Accounting 271. Principles of Accounting I. **(F)(3)**
Discussion of the concept of double-entry accounting. Introduction to the basic procedures in the accounting cycle, receivables, payables, inventories and other systems. *Prerequisite:* Business Education 105.

Accounting 272. Principles of Accounting II. **(S)(3)**
A continuation of Accounting 271, this course covers accounting procedures relative to partnerships, corporations, budgets, costing and financial report generation. *Prerequisite:* Accounting 271.

Accounting 331. Cost Accounting. **(F)(3)**
Special topics in job order and process cost for materials, labor, and overhead with variable and fixed portions. Budgeting and variances from budget are also covered. *Prerequisite:* Accounting 272.

Accounting 371. Intermediate Accounting I. **(F)(3)**
Accounting topics including the income statement balance sheet and change in owners' equity statements. Cash, receivables, inventories, plant, investments and intangible assets are also covered. *Prerequisite:* Accounting 272.

Accounting 372. Intermediate Accounting II. **(S)(3)**
Continuation of Accounting 371 covering current liabilities, contingent liabilities, long-term liabilities, accounting for income taxes, and owners' equity. Statement of Change in Financial Position, financial statement analysis and the impact of changing prices are also covered. *Prerequisite:* Accounting 371.

Accounting 376. Tax Accounting. **(S)(3)**
Problems of federal taxes for individuals, partnerships, and corporations are reviewed in depth. *Prerequisite:* Accounting 272.

Accounting 430. Accounting Theory. **(F)(3)**
Covers current accounting literature, including publications of the American Institute of Certified Public Accountants (AICPA), the Financial Accounting Standards Board (FASB), and the Securities and Exchange Commission (SEC). *Prerequisite:* Accounting 372.

Accounting 433. Auditing. **(S)(3)**
Topics covered include discussion of the ethics and liability of the auditor, verification, analysis, interpretation of accounting records, issuance of audit reports and other reports by CPA's. *Prerequisite:* Accounting 372.

Accounting 471. Advanced Accounting. **(S)(F)(3)**
Advanced in-depth discussion of accounting for joint ventures, consolidated statements, intercompany transactions, partnerships, and not-for-profit accounting. *Prerequisite:* Accounting 372.

BUSINESS ADMINISTRATION

Business Administration 151. Introduction to Business. **(F)(3)**
Forms of business ownership, marketing, personnel management, finance, and government regulations are discussed in an overview of organizations.

Business Administration 272. Salesmanship. **(S)(3)**
The interpretation of sales techniques and methods, prospecting customers, interviews, sales presentations, demonstrations, and closing the sale are presented.

Business Administration 311-312. Business Law. **(F,S)(3)**
An overview of laws dealing with contracts, agency, employment, bailment, transportation, real and personal property, leases, and bankruptcy.

Business Administration 321. Principles of Marketing. **(F)(3)**
Study of the movement of goods from producer to consumer and an examination of the functions of the marketing process, marketing institutions, channels of distribution, legal aspects, and policy considerations.

Business Administration 351. Principles of Finance. **(F)(3)**
The principal objective of this course is to introduce managerial finance as a functional area of business, including financial analysis, working capital practices, capital budgeting, corporate valuation, cost of capital and capital structure. *Prerequisite:* Accounting 271.

Business Administration 352. Principles of Management. **(F)(3)**
This course introduces students to the development of organization plans and policies, as well as providing an exposure to basic theoretical developments in management thought over the last one hundred years. Particular attention will be given to the topics of organizational design, control, quantitative techniques of management operations and theories of leadership.

Business Administration 370. Advertising. **(F)(3)**
An overview of the social, economic, and marketing environment in which advertising functions. This course will provide an in-depth coverage of advertising activities as they relate to consumer-driven mass media marketing activities. The course will focus on advertising planning and management as well as media strategies available to organizations. Although an understanding of marketing in general is helpful, Business Administration 321 is not a prerequisite.

Business Administration 371. Insurance. **(S)(3)**
Insurance contracts with fields of insurance, including fire, marine, casualty, social, disability, life, and property. (Odd years only.)

Business Administration 372. Personnel Management. **(S)(3)**
Using a system-process model, this course discusses the various subsystems (recruitment, selection, compensation, task specification, etc.) which fall under the responsibility of the personnel management function. The subsystems are designed to provide for the efficient and effective utilization of human resources in business concerns. *Prerequisite:* Business Administration 352.

Business Administration 404. Investments. **(S)(3)**
Intermediate discussion of stocks, bonds, and other investments. Analysis of the theories of investing, return and risk valuation of stock. Course will culminate in the management of a portfolio for differing investment alternatives. (Even years only.) *Prerequisite:* Business Administration 351.

Business Administration 451. Business Policy. **(S)(3)**
This course serves as a "capstone course" which attempts to bring together knowledge acquired in all of the functional areas of business (management, marketing, finance, accounting, etc.) in a case analysis situation. A strategic decision-making model will be presented as the basis for the alternative courses of action, and the implementation of the strategy chosen. *Prerequisites:* Senior status in the Business Administration program and the successful completion of Accounting 272, Business Administration 321, 351, 352, and 372.

BUSINESS EDUCATION

Business Education 105. Mathematics Applied to Business. **(F,S)(1)**
The application of basic mathematics to business operations including: Markups, markdowns, interest and discounts, bank reconciliation and graphing.

Business Education 281. Special Topics. **(on demand)(1)**

Business Education 331. Office Practice. **(S)(4)**
Emphasis is placed on the development of office proficiency, records management, internal and external office communications, information processing and administrative support services. Laboratory required. *Prerequisite:* Office Administration 112.

Business Education 353. Consumer Economics. **(S)(3)**
Objectives of this course include helping students become well-informed consumers and understanding the market forces of supply and demand which determine the prices affecting us.

Business Education 361. Methods of Teaching Secretarial Business Subjects. **(F)(3)**
A study of basic dimensions of methods, materials, and objectives in teaching secretarial subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson plans, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tapes. (Even years only.) *Prerequisites:* Admission to Teacher Education Program, Accounting 271 and 272, Business Education 331, Office Administration 112, 122 and 302, and Junior standing.

Business Education 362. Methods of Teaching Basic Business Subjects. **(S)(3)**
A study of the methods, materials, and objectives in teaching basic business subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson objectives, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tape. (Even years only.) *Prerequisites:* Admission to Teacher Education Program, Accounting 271 and 272, Business Administration 151, 311 or 312, 352, Business Education 353 and Office Administration 111 and 112, and Junior standing.

COMPUTER INFORMATION SYSTEMS

Computer Information Systems 105. Introduction to Microcomputer Packages. **(F,S)(2)**
A study and evaluation of the major packages available for microcomputers, including word processing, spreadsheet, graphics and data base packages.

Computer Information Systems 131. Introduction to Computer Information Systems. **(F,S)(3)**
Survey of the fundamental computer concepts, hardware, and operations, especially as applied in a business setting. In the second half of the term, students will be introduced to the fundamentals of programming concepts and documentation standards, using the BASIC programming language as a model.

Computer Information Systems 221. Business Application Programming I. **(F)(3)**
A study of the fundamental principles of algorithm development and structured computer programming used in solving business information systems problems, including an introduc-

tion to design and implementation documentation used by industry. Major topics include control structures, debugging, elementary data structures, and sequential files. A subset of COBOL is used as the programming language. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 222. Business Application Programming II. (S)(3)
A continuation of Business Application Programming I. A study of systems of programs and the techniques for their design and development. Major topics include dynamic data structures, random files, simple data structure moduling and implementation, and uses of bulk storage devices. Programming projects will be accomplished by using a full COBOL instruction set for mainframe application and by using BASIC for microcomputer applications. *Prerequisite:* Computer Information Systems 221.

Computer Information Systems 231. BASIC Programming. (F,S)(3)
A study of the BASIC programming language including problem definition, flowcharting solution of problems that are adaptable to business and/or science applications, and hands-on experience on the microcomputer. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 235. RPG Programming. (S)(3)
A study of the RPG II programming language includes problem definition, flowcharting, and the solution of problems that are adaptable to business applications. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 272.

Computer Information Systems 241. Microcomputer Applications in Business. (S)(3)
A survey of computer applications of information needs in business, of microcomputers, and of information systems that all these needs and a review of the standard software packages available to support a microcomputer-based executive workstation, including hands-on work with word and text processors, electronic spreadsheets, file and data base management systems, graphics packages, and accounting and other common application packages. *Prerequisites:* Computer Information Systems 131 and Accounting 271.

Computer Information Systems 250. Scientific Programming in FORTRAN. (F)(3)
A study of the fundamental principals of algorithm development and structured programming used to solve problems from the areas of mathematics, the physical sciences, and engineering, including an introduction to design and implementation documentation. Major topics are debugging, control structures, and elementary data structures. FORTRAN is used as the programming language. *Prerequisites:* Computer Information Systems 131 and one of the following Computer Information Systems 221 or Mathematics 241.

Computer Information Systems 310. Introduction to Computer Architecture. (S)(3)
A study of the fundamental concepts and terminology of computer architecture (including assembly languages) with emphasis on the relationships among hardware, architecture, systems software, and applications software. (Even years only.) *Prerequisite:* Computer Information Systems 221 or 250.

Computer Information Systems 315. Operating Systems. (S)(3)
Survey of the major components of operating systems, comparing and contrasting various systems including batch, time sharing, and microcomputer systems. (Odd years only.) *Prerequisite:* Computer Information Systems 221 or 250.

Computer Information Systems 331. Structured Systems Analysis. (F)(3)
A study of the system development life cycle emphasizing documentation and communication aids, interpersonal approaches and techniques used in analysis of systems, and logical system specification. *Prerequisites:* Computer Information Systems 221 and Accounting 271.

Computer Information Systems 332. Structured Systems Design. (S)(3)
(A continuation of Structured Systems Analysis.) A study of the structured design techniques used in designing a new logical and physical system for a given business related problem including documentation and communication aids. Alternative physical systems are designed and a multidimensional cost/benefit evaluation is performed. *Prerequisites:* Computer Information Systems 222 and 331.

Computer Information Systems 421. Software Engineering. (on demand)(3)
A study of the management and technical tools, procedures, and concepts used in creating software systems for specific application. Students will design and implement a software system. *Prerequisites:* Computer Information Systems 250, 315 and 331.

Computer Information Systems 425. Applied Software Development Project. **(S)(3)**
A study of application system development and project management. Students will design and implement a comprehensive system to solve a complex case study. *Prerequisites:* Computer Information Systems 332 and 441.

Computer Information Systems 441. Data Bases. **(F)(3)**
A study of software design in a data base environment, of data base systems, and of data base programming. A variety of hierarchical, network, and relational data bases are studied. *Prerequisites:* Computer Information Systems 222 and 331.

ECONOMICS

Economics 153. Principles of Economics I. **(F)(3)**
The primary objective of this course is to introduce the student to macroeconomic theory including a study of the economizing problem, pure and mixed capitalism, demand and supply, the economic functions of government, national income accounting, the business cycle, employment theory, money and banking, and fiscal policy.

Economics 154. Principles of Economics II. **(S)(3)**
The primary objective of this course is to introduce the student to microeconomic theory, including demand and supply analysis, elasticity, the production function, price and output determination, costs of production, pricing and employment of resources, and market structures.

Economics 251. Environmental Economics. **(S)(3)**
Societal choice in the use of scarce resources is related to ecosystem survival, environmental quality, and human welfare.

Economics 363. Money and Banking. **(F)(3)**
Objectives of this course include introducing the student to the development of the commercial banking system, the Federal Reserve System, and further exploration of fiscal and monetary policy. *Prerequisite:* Economics 153.

Additional courses listed under: Behavioral Sciences 245, Business Administration 351, Business Education 353, and History 241.

OFFICE ADMINISTRATION

Office Administration 105. Keyboarding. **(F,S)(1)**
Designed to acquaint students with keyboarding skills necessary to operate a computer efficiently.

Office Administration 111. Elementary Typewriting. **(F)(3)**
A first course in typewriting for the secretarial student. Also for those needing one course in typing for personal use. Keyboard and fundamental processes are presented. Students presenting one or more units of high school typewriting may not take this course.

Office Administration 112. Intermediate Typewriting. **(F,S)(3)**
Emphasis is placed upon techniques, speed, and accuracy. Electronic typewriters and problem typing are introduced. *Prerequisite:* Office Administration 111, one unit of high school typing or the equivalent.

Office Administration 121. Elementary Shorthand. **(F)(3)**
Principles of Gregg Shorthand, Series 90. Places emphasis on theory and developing reading and writing skills. Letter transcription introduced. Students presenting one or more units of high school shorthand may not take this class. Laboratory required.

Office Administration 122. Intermediate Shorthand. **(S)(3)**
Greater emphasis placed on writing and transcribing with speed and accuracy. Gregg theory and basic typewriting concepts reviewed. *Prerequisites:* Office Administration 111 and 121 with a grade of at least a "C" or the equivalent.

Office Administration 211. Advanced Typewriting. **(S)(3)**
This is the final course in typing. Simulations in the sales office, general office, accounting office, executive office, legal office, medical office, technical office, and government office are completed on electronic typewriters. Speed and accuracy are emphasized. *Prerequisite:* Office Administration 112 with a grade of at least "C" or the equivalent.

Office Administration 221. Dictation and Transcription. **(on demand)(3)**
Emphasis placed on speed in taking dictation and in transcription skills. *Prerequisites:* Office Administration 112 and 122 with a grade of at least "C" or the equivalent.

Office Administration 301. Business English: Theory and Applications. **(F)(3)**
Comprehensive review of grammar and usage. Emphasizes and reinforces business applications and vocabulary in areas such as business law, word processing, merchandising management, and computer information systems. *Prerequisite:* English 111 with a grade of at least "C".

Office Administration 302. Business Communication. **(S)(3)**
Realistic methods of mastering writing skills needed in business situations. Emphasizes instruction in both the basic and advanced techniques of preparing and organizing business letters, memoranda, and reports. Also enhances speaking, reading and listening skills. *Prerequisite:* English 111 or Office Administration 301.

Office Administration 361. Office Management. **(F)(3)**
The principal objective of this course is to introduce the student to the theories and practices required for effective office administration, including communication skills, staffing and supervisory procedures, space management, and word processing.

II. DEPARTMENT OF EDUCATION

Jean L. Letch, *Department Head*
Elementary Education — Middle Grades Education — Secondary Education

The undergraduate programs in the Department of Education have as their primary objective the preparation of superior teachers for public and private schools, elementary, middle grades, and secondary.

At Union College the education of prospective teachers is the responsibility of the College as a whole, not the Department of Education alone.

The teacher education programs described in the following pages prepare the student to receive a baccalaureate degree and, upon recommendation of the College, a Kentucky teachers certificate. A student who wishes to teach in a state other than Kentucky should determine certification requirements in that state (usually quite similar to Kentucky's), and plan his program accordingly. Information on certification requirements in other states is available in the Registrar's Office and in the Career Planning and Placement Office.

Students preparing for teacher certification must be admitted to the Teacher Education Program of the College before they will be allowed to register for any of the professional education courses beyond Education 241 or Education 242. These students may not take professional preparation education courses on a Credit/Fail or Independent Study basis.

Graduates may continue their professional preparation by entering the Graduate Studies Program. A separate catalog is available from the Dean of Graduate Academic Affairs.

Purpose of the Teacher Education Program

The Teacher Education Program at Union College seeks to aid each student in the realization of the following objectives:

1. A knowledge of the social, physical, and psychological factors which determine behavior and which promote intellectual growth, emotional balance, and wholesome personality.
2. The development of health habits, physical skills, and recreational interests essential to personal well-being and to highest teaching effectiveness.
3. An understanding of the principles and purposes of education in a democratic society.
4. The cultivation of attitudes and abilities essential to successful relationship with youth and professional associates.
5. An understanding of the principles and techniques of effective teaching, and the development of appropriate teaching skills.
6. An appreciation of the worth of teaching as a career and as an opportunity for service to youth and to society.

Requirements for Admission to Teacher Education Program

I. Students who wish to enter teacher education must prepare a folder for presentation to the Teacher Education Committee for approval. The folder must be complete before the student is admitted to the program and must contain the following:

1. Application to the program and an acceptably written essay (2-3 pages) on "Why I want to be a teacher".
2. Four unqualified recommendations from instructors.
3. Documentation to show that all competency tests have been passed. (Students will be permitted to take the first competency test upon enrollment in Introduction to Education and Early Involvement. Students who present evidence of successful completion of competency tests taken at other institutions and have transferred to Union will have these tests accepted by Union College.)
4. Documentation to show that the student has passed a Teacher Education Interview. (Students who enter under the old program [see III, 1 below] must still pass a Teacher Education interview.)
5. Documentation to show that the student has a cumulative grade point average of at least 2.25.
6. Documentation to show that the student has completed a minimum of 30 hours.
7. Documentation to show that the student has completed English 111 and 112 with a grade of "C" or better in both courses.
8. Documentation to show that the student has either completed or is enrolled in and taking Introduction to Education and/or Early Involvement when the folder is presented.

II. Students who have failed to pass one competency test or who lack one recommendation or those who are currently enrolled in but have not yet completed Introduction to Education, Early Involvement, and English 112 may be admitted conditionally to the program if all other requirements have been met.

III. 1. Undergraduates entering under the old program must have filed a formal application for teacher education prior to September, 1982. However, the teacher education interview will be required.

2. Students who fail a competency test will receive mandatory tutoring before re-taking any competency test.

Requirements for Admission to Student Teaching

1. Formal written application by mid-term of the semester preceding the planned student teaching. Application forms may be obtained in the Department of Education office.
2. Senior standing is a prerequisite for admission to student teaching.
3. Completion of at least 90 semester hours of credit with at least a 2.5 grade point average in all courses attempted and 2.5 in all work attempted in the area, major, or minor fields for which certification is sought.
4. Completion of three-fourths of all required professional education courses with an academic standing of at least 2.5.
5. Completion of three-fourths of all coursework for the teaching major or area of concentration if student teaching is to be done in this specialization; or completion of all the coursework for the teaching minor if student teaching is to be done in the minor area.
6. Approval of the department in which teaching fields are sought.
7. Moral, social, and ethical behavior acceptable in the school community as well as in the community at large.
8. A valid and current medical examination which includes a tuberculosis test filed with the Teacher Education Committee.
9. Maintenance of good standing since admission to the Teacher Education Program.
10. Completion of institutional prerequisites with respect to time in residence and pre-student teaching laboratory experiences.
11. Acceptance by the Teacher Education Committee of the College.
12. No professional education course with a grade below "C" will be accepted.

EARLY ELEMENTARY EDUCATION CURRICULUM

I. Preprofessional Courses for Students Preparing to Teach Early Elementary Education (K-4) (No courses can be taken on an Independent Study basis.) Early Elementary teachers need at least three hours each of a Biological and a Physical Science (each must include a lab).
   A. Anthropology 221 or Anthropology 251 or Political Science 231 ..... 3 semester hours
   B. Art 271 — Elementary School Art ..... 3 semester hours
   C. Computer Information Systems 105 — Introduction to Microcomputer Packages ..... 2 semester hours
   D. English 355 — Children's and Adolescent Literature ..... 3 semester hours
   E. Mathematics 203 and 204 — Structure of the Number System ..... 6 semester hours
   F. Music 373 — Elementary School Music ..... 3 semester hours
   G. Physical Education 261 — Physical Education in the Elementary School ..... 3 semester hours
   H. Physical Education Service Course ..... 1 semester hour
   I. Psychology 111 — Introduction to Psychology ..... 3 semester hours
   J. Sociology 241 or Geography 241 ..... 3 semester hours
   K. Speech 131 — Fundamentals of Speech ..... 3 semester hours

II. Professional Preparation for Early Elementary Teachers (K-4)
   A. Education 241 — Introduction to Education ..... 3 semester hours
   B. Education 242 — Early Involvement Internship ..... 3 semester hours
   C. Education 341 — Methods of Teaching Mathematics in the Elementary School ..... 3 semester hours
      (Prerequisites: Mathematics 203 and 204)
   D. Education 342 — Teaching Science in the Elementary Grades ..... 3 semester hours
   E. Education 351 — Human Growth and Development ..... 3 semester hours
      (Prerequisite: Psychology 111)
   F. Education 361 — Reading in the Primary Grades ..... 3 semester hours
   G. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hours
      (Prerequisite: Education 361)
   H. Education 432 — Methods and Materials in the Elementary School ... 4 semester hours
      (Prerequisites: All 200- and 300-level courses listed under Preprofessional Requirements and Professional Preparation)
   I. Education 433 — Supervised Student Teaching in the Elementary School ..... 12 semester hours
      (6 hours in one grade level and 6 hours in a non-consecutive grade level)
   J. Education 441 — Elementary School Social Studies ..... 3 semester hours
   K. Education 488 — Professional Interaction in the Schools ..... 3 semester hours
   L. Psychology 361 — Psychology of Learning ..... 3 semester hours
      (Prerequisite: Psychology 111)
   M. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours
      (Prerequisite: Psychology 111)

See Requirements for Admission to Student Teaching

III. Academic Emphasis
(Each student will complete a minimum of 21 semester hours in one of the following six options.)
   A. ENGLISH/COMMUNICATIONS:
      English 111, 112, 221 or 222 or 241 or 242, 355, 212, 421, Speech 131
   B. FINE ARTS/HUMANITIES:
      Art 132, 271, Music 121, 373, Speech 131, Religion 111 or 112 or 231, one elective in Religion or Music numbered 300 or above (3 hrs)
   C. FOREIGN LANGUAGE:
      German 111, 112, 211, 212, 331, 495, Independent Study (6 hrs) OR French 111, 112, 211, 212, 331, 495 Independent Study (6 hrs)
   D. MATHEMATICS STUDIES:
      Mathematics 111, 203, 204, 211, 301, Computer Information Systems 105 or 231, one elective in Mathematics numbered 300 or above (3 hrs)
   E. SCIENCES:
      Biology 111, 232 or 233 or 330 or 331, General Science 471, Environmental Studies 350, Physics 105, 111 and 113 or 112 and 114 or Chemistry 111 and 131

F. SOCIAL AND BEHAVIORAL SCIENCES:
Geography 101, Economics 153 or 154, Political Science 101 or 231, History 201 or 202, Anthropology 221, Psychology 361, one elective numbered 300 or above in History or Sociology

For information on the academic emphasis components see the Head of the Department of Education or a Planned Curriculum for Early Elementary Education.

ELEMENTARY EDUCATION CURRICULUM

(This program must be completed before September 1, 1989.)

I. Preprofessional Course Requirements for Elementary Education Majors (1-8)
(No courses can be taken on an Independent Study basis.)

A. Art 271 — Elementary School Art ..... 3 semester hours
B. English 355 — Children's and Adolescent Literature ..... 3 semester hours
C. General Science 401 — Science: Concepts, Processes and Inquiry ..... 3 semester hours
D. Geography 241 or Sociology 241 ..... 3 semester hours
E. Mathematics 203 and 204 — Structure of the Number System ..... 6 semester hours
F. Music 373 — Elementary School Music ..... 3 semester hours
G. Physical Education 261 — Physical Education in the Elementary School ..... 3 semester hours
H. Physical Education Service Course ..... 1 semester hour
I. Psychology 111 — Introduction to Psychology ..... 3 semester hours
J. Speech 131 — Fundamentals of Speech ..... 3 semester hours
K. One Biological and one Physical Science ..... 7 semester hours

II. Professional Course Requirements for Elementary Majors (1-8)
(These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option.)

A. Education 241 — Introduction to Education ..... 3 semester hours
B. Education 242 — Early Involvement Internship ..... 3 semester hours
C. Education 341 — Methods of Teaching Mathematics in the Elementary School ..... 3 semester hours
D. Education 351 — Human Growth and Development ..... 3 semester hours
(*Prerequisite:* Psychology 111)
E. Education 361 — Reading in the Primary Grades ..... 3 semester hours
F. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hours
G. Education 432 — Methods and Materials in the Elementary School ... 4 semester hours
H. Education 433 — Supervised Student Teaching in the Elementary School ..... 12 semester hours
I. Education 441 — Elementary School Social Studies ..... 3 semester hours
J. Education 488 — Professional Interaction in the Schools ..... 3 semester hours
K. Psychology 361 — Psychology of Learning ..... 3 semester hours
L. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours

See Requirements for Admission to Student Teaching

For those students entering as freshmen during or after the fall semester 1985, a choice of three teaching certificates or a combination thereof is possible, i.e., Lower Elementary (grades K-4), Middle School (grades 5-8), and/or Secondary (grades 9-12). See the Head of the Education Department for more information.

MIDDLE GRADES EDUCATION CURRICULUM

I. Professional Course Requirements for Students Preparing to Teach in the Middle Grades (5-8)

(No courses can be taken on a credit/fail nor an Independent Study basis.) Middle Grade teachers need at least 3 hours each of a Biological and a Physical Science (one must include a lab).

A. Health 270 — Personal and Community Health .....3 semester hours
B. Physical Education Service Course .....1 semester hour
C. Psychology 111 — Introduction to Psychology.....3 semester hours
D. Sociology 241 or Geography 241 or History 233.....3 semester hours
E. Speech 131 — Fundamentals of Speech .....3 semester hours

II. Professional Preparation for Middle Grades Teachers (5-8)

A. Education 241 — Introduction to Education .....3 semester hours
B. Education 242 — Early Involvement Internship.....3 semester hours
C. Education 361 — Reading in the Primary Grades.....3 semester hours
D. Education 362 — Teaching Reading in the Content Subjects.....3 semester hours
(*Prerequisite:* Education 361)
E. Education 443 — Supervised Student Teaching in the Middle Grades.....12 semester hours
F. Education 488 — Professional Interaction in the Schools .....3 semester hours
G. Psychology 361 — Psychology of Learning .....3 semester hours
(*Prerequisite:* Psychology 111)
H. Special Education 365 — Foundations of Education of the Exceptional Child.....3 semester hours
(*Prerequisite:* Psychology 111)

See Requirements for Admission to Student Teaching

III. Specialization Component

A. Education 352 — Human Growth and Development in the Middle Grades.....3 semester hours
(*Prerequisite:* Psychology 111)
B. Education 370 — Curriculum Development for the Middle Grades.....3 semester hours
C. Education 436 — Methods and Materials for the Middle Grades .....4 semester hours
(*Prerequisite:* All 200-and 300-level courses listed under Professional Requirements and Professional Preparation)

See Requirements for Admission to Student Teaching

IV. Teaching Fields
(Each student will complete a minimum of 24 semester hours in two fields of study.)

A. ENGLISH AND COMMUNICATION:
English 111, 112, 241 or 242, 355, 401 or 421, 311 or 402, Speech 131, and one English Elective (3 hrs)
B. SCIENCE:
Biology 111, 232 or 233 or 330 or 331, Physics 105, 111 and 113 or 112 and 114, Chemistry 111 and 131, Environmental Studies 350
C. SOCIAL STUDIES:
History 111, 112, 201, 202, Political Science 101 or 110, Geography 101, Economics 153 or 154, Sociology 131 or Anthropology 221
D. MATH OPTION I:
Mathematics 203, 204, 211, 241, 301, 331, Computer Information Systems 231, and one Mathematics Elective (3 hrs)

E. MATH OPTION II:
Mathematics 241, 242, 243, 331, 332, 372, 402, 403, 471, Physics 211, 212, 213, 214, and one Mathematics Elective (3 hrs)

SECONDARY EDUCATION CURRICULUM

I. Preprofessional Course Requirements for Students Preparing to Teach in the Secondary School.

A. Geography 241 or History 233 or Sociology 241 ..... 3 semester hours

B. Health 270 — Personal and Community Health ..... 3 semester hours

C. Physical Education Service Course ..... 1 semester hour

D. Psychology 111 — Introduction to Psychology ..... 3 semester hours

E. Speech 131 — Fundamentals of Speech ..... 3 semester hours

F. Majors, Minors, and Areas of Concentration*
An Area of Concentration ..... 48 semester hours
One Major ..... 30 semester hours
One Major of 30 semester hours and one Minor of 21 semester hours ..... 51 semester hours

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*Choose any one of the 3 options listed.

Majors in subject combinations shall require 36 semester hours credit. In a combination of subjects for majors, no fewer than 12 semester hours shall be in each subject within the major. Method courses shall be in addition to those in the majors and minors. Education 362 is required of students preparing to teach English. A teaching minor in English shall require an additional 3 semester hours of credit beyond the usual 21 and must include a course in linguistics.

II. Professional Preparation for Secondary Teachers. These courses are to be taken in a six semester sequence in the following order.

A. Education 241 — Introduction to Education ..... 3 semester hours

B. Education 242 — Early Involvement Internship ..... 3 semester hours

C. Education 351 — Human Growth and Development ..... 3 semester hours

D. Education 452 — Methods and Materials in the Secondary School ..... 4 semester hours

E. Education 453 — Supervised Student Teaching in the Secondary School ..... 12 semester hours

F. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

G. Psychology 361 — Psychology of Learning ..... 3 semester hours
(*Prerequisite:* Psychology 111)

H. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours
(*Prerequisites:* Education 241 and 242)

See Requirements for Admission to Student Teaching.

ASSOCIATE OF APPLIED SCIENCE IN VOCATIONAL EDUCATION
(for vocational teachers)

	Credit Hours
English 111 and 112 — Freshman Composition	6
Psychology 111 — Introduction to Psychology	3
Speech 131 — Fundamentals of Speech	3
Natural Science Core Requirement	4
Humanities Core Requirement	3
Social Science Core Requirement	3
Experience Credit for Vocational Certification	6-9
Vocational Education Block (from state approved school) (transfer)	24
Free electives	9-12
	64

ASSOCIATE OF APPLIED SCIENCE IN EDUCATION*

	Credit Hours
English 111 and 112 — Freshman Composition	6
Natural Science (Environmental Studies 101 recommended)	4
Sociology 131 — Introduction to Sociology or Sociology 421 — Rural & Urban Sociology	3
Psychology 111 — Introduction to Psychology	3
Humanities Requirement (speech or theatre recommended)	3
Art 271 — Elementary School Art	3
Music 373 — Elementary School Music	3
Education 241 — Introduction to Education	3
Education 351—Human Growth and Development	3
Education 440 — Early Childhood Education	3
English 355 — Children's and Adolescent Literature	3
Health 270 — Personal and Community Health	3
Sociology 371 — Social Institutions	3
Health 361 — Principles of Nutrition	3
Special Education 365 — Foundation of Education of the Exceptional Child	3
Supervised Experience in Early Childhood Education	3
Electives — Recommended from Appalachian Semester, Kentucky History, Typing, Recreational Leadership, Arts & Crafts, & Structure of Number Systems	12
	64

ASSOCIATE OF APPLIED SCIENCE FOR GRADUATES OF STATE VOCATIONAL SCHOOLS

UNION COLLEGE OFFERS SPECIAL PROGRAMS AT THE ASSOCIATE DEGREE LEVEL FOR GRADUATES OF STATE APPROVED VOCATIONAL SCHOOLS. THE AMOUNT OF CREDIT HOURS APPLICABLE TOWARD THE ASSOCIATE DEGREE DEPENDS ON THE LEVEL OF WORK COMPLETED IN THE VOCATIONAL SCHOOL (DIPLOMA OR CERTIFICATE).

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*Designed for those who work in day care centers and agencies dealing with small children where teacher certification is not required.

EDUCATION

Education 241. Introduction to Education. **(F,S)(3)**
The purpose and function of education. Classroom and school organization, guidance services, library services, evaluation, reporting to parents and other phases of the school program.

Education 242. Early Involvement Internship. **(F,S)(3)**
A practical course in which students are assigned to a local school classroom 3 hours per week, and meet periodically to discuss and generalize their experiences. Acquiring competence in the following: observation, diagnosis, instructional design and planning, use of media and new technology. To be taken concurrently with Education 241. A $5.00 fee is charged.

Prerequisite for the following courses is admission to the Teacher Education Program

Education 341. Methods of Teaching Mathematics in Elementary School. **(F)(3)**
Modern methods and materials for teaching mathematics in the elementary school. *Prerequisite:* Mathematics 203-204 or equivalent.

Education 342. Teaching Science in the Elementary Grades. **(S)(3)**
The student will examine science curriculum materials and activities in terms of Piaget's developmental stages. Topics will be identified that could be taught using experimental, inquiry, or discovery methods. Lesson plans will be developed using each of the three methods and activities constructed.

Education 351. Human Growth and Development. **(F,S)(3)**
Basic concepts for understanding the development of the child and the adolescent. Includes field experience. *Prerequisite:* Psychology 111 (10 hours field experience).

Education 352. Human Growth and Development in the Middle Grades. **(On demand)(3)**
This course focuses on the physical, intellectual, personal, social and moral development of children in fourth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media will also be included.

Education 361. Reading in the Primary Grades. **(F)(3)**
Methods and materials for the teaching of reading in the primary grades including observations, micro-teaching demonstrations, making of lesson plans, and evaluation of a child's readiness.

Education 362. Teaching Reading in the Content Subjects. **(S)(3)**
Emphasis on study skills, individualized programs and reading in the content subjects. *Prerequisite:* (except for English majors) Education 361.

Special Education 365. Foundations of Education of the Exceptional Child. **(F,S)(3)**
Etiology and assessment of exceptional learning conditions; characteristics of exceptionalities; special education intervention. *Prerequisite:* Psychology 111 (10 hours field experience).

Education 370. Curriculum Development for the Middle Grades. **(On demand)(3)**
This course involves tracing the history of curriculum development in the United States, as well as identifying trends in the curriculum of the middle school. It will include curriculum design, middle school terminology and techniques, social and cultural forces, political forces, programs, organization and evaluation.

Education 401. Introduction to Counseling and Guidance. **(S)(3)**
Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges, and related service-oriented agencies. Essential counseling and guidance services, policies, practices and procedures. *Prerequisite:* Psychology 111.

Education 432. Methods and Materials in the Elementary School. **(F)(4)**
Emphasis on language arts, social studies, and science; directed observation. *Prerequisites:* Education 241, 341, 351, 361, and 362. Psychology 361; 90 semester hours college credit, quality point standing of 2.25 overall and at Union College; one semester residence. No late registration.

Education 433. Supervised Student Teaching in the Elementary School. **(S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and meals paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 436. Methods and Materials for the Middle Grades. **(On demand)(3)**
This course focuses on instructional strategies and materials needed for releasing the potential for the middle grade student leading from concrete to abstract learning. The course will include curriculum concepts and designs, innovative activities using hands-on-experiences, techniques of writing lesson plans, the development of a unit of work, materials for journal writing, class demonstrations and evaluation.

Education 440. Early Childhood Education. **(Sum)(3)**
Survey of the physical, emotional, mental, and psychological development of the child under six and the role of the kindergarden teachers in working with such a child.

Education 441. Elementary School Social Studies. **(F)(3)**
Methods and materials for the teaching of elementary school social studies, including kindergarten through eighth grade curricula. The philosophies, terminology, and evaluation of methods and materials will be included.

Education 443. Supervised Student Teaching in the Middle Grades. **(S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and means paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 452. Methods and Materials in the Secondary School. **(F)(4)**
Current teaching methods, materials, and innovations in the secondary school with directed observations. *Prerequisites:* All 200- and 300-level courses listed under Pre-professional Course Requirements and Professional Preparation. (25 hours field experience.)

Education 453. Supervised Student Teaching in the Secondary School. **(F,S)(12)**
Under the direction of an experienced teacher, the student directs the usual teaching activities in the classroom for a minimum of 12 weeks. Application should be made one full semester in advance of the time the teaching is to be done. *Prerequisite:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 468. Educational Media. **(Sum)(3)**
Practice in operating educational media and construction of classroom materials. Emphasis on educational television use in the classroom.

Education 488. Professional Interaction in the Schools. **(F)(3)**
Discusses the role of the professional teacher including professional values, school community relations, school finance and programs of the school, legal aspects and human interaction in the schools from a variety of perspectives and theories. Addresses the role of classroom management in the learning process.

Education 495. Independent Study. **(F,S,Sum)(3)**
Open only to advanced students in the field of Education who wish to do intensive reading in a specific interest area. *Prerequisite:* Twelve semester hours of Education and permission of the Head of the Department.

III. DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Larry Inkster, *Department Head*
Health — Physical Education

HEALTH

Students preparing to teach in an elementary or secondary school in Kentucky are required to complete the following courses: for an elementary certificate, Physical Education 261; for a secondary certificate, Health 270.

Requirements for a Minor in Health Education: Twenty-one semester hours which must include Health 270, 311, and 340. Courses must be chosen from those listed under Health Education major.

Health 131. First Aid and Safety Education. **(S)(3)**
Designed to aid the student in developing an understanding of the basic principles of accident prevention as applicable to the home, the highway, and the school. First aid measures for various injuries and illnesses are discussed and practiced.

Health 270. Personal and Community Health. **(F)(3)**
The relationship of bodily functions to personal health and grooming and to community and natural health.

Health 311. Health Education — K-12. **(S)(3)**
The experiences, activities, and instruction of elementary and secondary students that lead to intelligent self-direction of health behavior.

Health 340. Physiology and Anatomy. **(F)(3)**
A study of cellular construction, tissues, organs, and systems of the human body. A study of the functions of these organs and systems as it deals with health and physical education discipline.

Health 361. Principles of Nutrition. **(F)(3)**
A study of the composition, nutritive value, and utilization of food.

Health 421. Community Health. **(F)(3)**
The social and cultural factors, the physical environment, and the health agencies and services as they relate to the health of the community.

Health 451. School and Community Health Workshop. **(Sum)(3)**
Reveals the relationship needed between the school and community to promote the total health of the population. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsored agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio-visual aids.

Health 461. Nutrition for Special Needs. **(S)(3)**
A course focusing on the nutrition needs through the life cycle, energy metabolism, and therapeutic applications of nutrition.

Health 475. Critical Areas in Health. **(F,Sum)(3)**
Specific health problems confronting society today with particular reference to secondary age students.

Health 485. Field Experiences in Health. **(F,Sum)(3-6)**
A directed field experience in some phase of health, with consideration given to both the needs and interests of the student. Opportunities will be available for practical experiences in the school situation, official health agencies, and voluntary agencies.

Health 495. Independent Study. **(F,Sum)(1-3)**
Independent study for advanced students only.

PHYSICAL EDUCATION

Requirements for a Major in Physical Education: Students choosing to pursue a Secondary teaching certificate must take thirty semester hours which must include Physical Education 351, 361, 420, 421, Health 131 and 340 and four service courses. Physical Education 461 is required but will not count toward the required 30 hour major. Only two coaching courses may be counted toward the 30 hour major.

A maximum of eight semester hours of service courses may be credited toward graduation. Physical education majors must take four service courses. This is the maximum that can be applied to a major, but others may be taken as electives. The following service courses also meet the elementary and secondary requirement for physical education.

Physical Education 111. Beginning Swimming (Non-swimmers only) **(F,S,Sum)(1)**

Physical Education 112. Intermediate Swimming. **(F)(1)**

Physical Education 113. Senior Lifesaving. **(F)(1)**
Prerequisite: Intermediate swimming or permission of the instructor.

Physical Education 121. Team Sports. **(F)(1)**

Physical Education 122. Volleyball. **(F,S)(1)**

Physical Education 132. Golf. **(F,S,Sum)(1)**

Physical Education 133. Tennis and Badminton. **(F,S,Sum)(1)**

Physical Education 134. Personal Fitness and Aerobic Activities. **(F)(S)(1)**

Physical Education 135. Beginning Tumbling. (Even years only.) **(S)(1)**

Physical Education 136. Weight Training. **(F)(1)**

Professional Courses

Physical Education 241. History of Physical Education. **(S)(3)**
From primitive man through the present, with particular emphasis on Greek physical education, European systems, and development of physical education in America. Some research into the history of various sports. (Even years only.)

Physical Education 251. Prevention and Care of Athletic Injuries. **(F)(3)**
Practical study and evaluation of various methods of conditioning. Emphasis on preventive and protective measures, practical study involving basic principles of massage, bandaging, strapping and first aid. Analysis of the instruction and operation of the training room.

Physical Education 261. Physical Education in the Elementary School. **(F)(3)**
The role of the classroom teacher in physical education. How to correlate and evaluate. The application of games, movements, exploration, rhythms, self-testing activities, and screening tests.

Physical Education 271. Sports Officiating. **(F)(3)**
Rules and officiating techniques in football, basketball, baseball, and track. (Odd years only.)

Physical Education 301. Theories of Coaching Football. **(F)(3)**
The practical study of the game of football, as it applies to the coach and player. A study of the fundamental skills, principles, and concepts.

Physical Education 302. Coaching Men's and Women's Basketball. **(F)(3)**
(Even years only.)

Physical Education 304. Coaching Baseball and Softball. **(F)(3)**
(Even years only.)

Physical Education 305. Coaching Track and Field for Men and Women. **(S)(3)**
(Odd years only.)

Physical Education 321. Recreational Leadership. **(S)(3)**
Leadership techniques in music, social games, arts and crafts, dramatics, camping, nature, and sports. Designed to aid students in enriching their own leisure time and to prepare for leadership in teaching, full-time Christian service, and social service.

Physical Education 351. Tests and Measurements in Health and Physical Education. **(S)(3)**
Evaluating health and physical education by the construction and administering of tests. Emphasizes reliability, objectivity, validity of tests, and grading system.

Physical Education 361. Organization and Administration of Physical Education and Athletics. **(S)(3)**
Administration of physical education and athletic programs in schools, with special emphasis on philosophy and leadership styles. Includes budget and finance, office management, curriculum development, facilities, legal factors, and public relations.

Physical Education 420. Physical Education for the Exceptional Child. **(F)(3)**
Health conditions which require the physical education program to be adapted to meet the needs of individuals with handicapping conditions will be studied. Additional emphasis on national, state, and local agencies designed to help meet the needs of these individuals. Some work with a local, exceptional population may be required.

Physical Education 421. Kinesiology. **(S)(3)**
An analysis of human motion and its relation to athletic and gymnastic activities; practical application of these principles.

Physical Education 461. Physical Education in the Secondary School. **(F)(3)**
Topical areas such as philosophy, teacher certification, competencies, and professional activities will be covered. Curriculum construction, instructional methods, class management and techniques for teaching specific activities will be considered as they relate to the secondary level.

Physical Education 495. Independent Study. **(F,S,Sum)(3)**
Independent work for advanced students only.

MILITARY SCIENCE PROGRAM (Army ROTC)

ROTC at Union College is affiliated with Eastern Kentucky University's program. Instructors rom Cumberland College or EKU serve in an instructional capacity on Union's campus. Army ROTC has a dual mission: (1) the enhancement of citizenship through the development of eadership potential and an appreciation of the roles and missions of our national defense tructure; (2) the preparation of students who are qualified by education, experience, attitude, and nherent qualities for service in the U.S. Army Reserves, National Guard, or regular active service.

Completion of the Introduction to Military Science (100-200 level) meets the first of these nissions by providing the student a foundation for the development of leadership and manage- nent skills through life experience and also by serving as a prerequisite for entry into the dvanced military science program. The student incures no military obligation for participation in he Introduction to Military Science. Students whose future employment goals may require eadership or managerial skills, those with an interest in our national defense structure, or those vho wish to explore the benefits of a career in the U.S. Army Reserves, National Guard, or regular ervice are encouraged to take the introductory courses.

For additional information, including questions on ROTC scholarships and other assistance, ee military science officers on campus or the division chair of Applied Sciences.

MILITARY SCIENCE

Military Science 101. Group Dynamics of Leadership. **(F)(2)**
Development of leadership and problem solving abilities; examination of leadership style and counseling techniques; comparison of civilian and military leadership; and analysis of the Constitutional historical basis for the U.S. Army.

Military Science 102. Dynamics of Leadership and Operational Teamwork. **(S)(2)**
A study of theories, principles, techniques and fundamentals of map reading and their application. Classes are systematically arranged to promote student participation in group leadership development and problem solving techniques.

Military Science 202. American Military History. **(S)(3)**
Examines U.S. Military history from pre-revolutionary times to post-Vietnam; defines the principles of war; discusses political-military interactions; develops leadership through group contributions; case studies which apply the principles of war to historical periods. This course counts toward the history major.

Military Science 203. Intermediate Leadership and Management. **(F)(2)**
Provides students continued development of basic military skills through practical leadership experiences in performing emergency medical treatment, drill and ceremonies, physical training and rifle marksmanship. Principles of leadership and management are presented in classroom discussion.

Military Science 287. Military Science Practicum (Basic). **(on demand)(2,5,6)**
Introduces Military Science in a comprehensive summer field course designed to be taken in lieu of MLSC 101, 102, 202, or 203. This course emphasizes practical field application and leadership development.

Military Science 301. Advanced Leadership and Management I. **(F)(3)**
Introduction to advanced leadership and management, emphasizing the branches of the Army, communication systems, and equipment. Defines principles of leadership and develops leadership through practical application as a leader in field training and physical conditioning.

Military Science 302. Advanced Leadership and Management II. **(S)(3)**
Develops leadership and management ability and military skills in military communications, weapons, and tactics. Develops leadership and command presence through student presentations and practical application as a leader in field training and physical conditioning.

Military Science 401. Fundamentals and Dynamics of the Military Team I. **(F)(3)**
Develop staff officer skills in leadership and management through decision making and problem solving techniques through military planning, administrative and logistical management and detailed training management.

Military Science 402. Fundamentals and Dynamics of the Military Team II. **(S)(2)**
Discusses the impact of world affairs on U.S. Armed Forces; defines overall professional and ethical responsibilities of military officers; development of military officers; development of military management techniques; establishes a basic understanding of military justice and the Geneva convention.

Military Science 487. Military Science Practicum (Advanced). **(on demand)(6)**
Develops leadership through intensive six-week field course of rotating leader/command experience in problem analysis, decision making, and troop leading, while providing in-depth coverage of technical and tactical subjects.

DIVISION OF HUMANITIES

Dianne R. Ferris, *Chairperson*
Department of English and Foreign Languages
Department of Music and Fine Arts
Department of Religion and Philosophy

HUMANITIES

umanities 101, 102, 103, 104. Chapel. **(F,S)(1)**
Participation in chapel programs is designed to aid the student in achieving the breadth and flexibility of mind necessary for full participation in a complex culture. Four major themes are addressed: (a) God and the relations between God, the universe, and man; (b) significant ethical questions and moral issues; (c) the ceremony and liturgy of the Church; (d) significant art and music in the Christian tradition. May be repeated for a maximum of four credits in a four-year course of study.

umanities 202. Introduction to Film. **(on demand)(3)**
Film is studied as an art form concerned with the human values of mankind. Appreciation of film and its basic elements and techniques is stressed.

umanities 204. History of the Motion Picture. **(on demand)(3)**
A study of film's development as a distinctive medium of communication and as an art form. The course offers explorations of landmark films from the silent period to contemporary times.

umanities 320. Medieval Civilization. **(S)(3)**
An introduction to the history and civilization of Western Europe from 800 to 1450. (Odd years only.)

I. DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

Andelys Wood, *Department Head*
English — French — German — Spanish
Journalism (Area of English)

ACHELOR OF ARTS DEGREE IN ENGLISH

equirements for a Minor in English

n additional elective English course and Education 362 are required for those seeking teacher ertification.

		Semester Hours
NGL 221	Survey of English Literature I	3
NGL 222	Survey of English Literature II	3
NGL 241 or 242	Major American Writers	3
NGL 311	Intermediate Composition	3
NGL 351 or	The Novel: Defoe to Brontes	
NGL 352 or	The Novel: ca. 1850 to Faulkner	
NGL 361	Modern Poetry	3
NGL 372	Shakespeare	3
NGL 401 or	Modern Grammar	
NGL 421	History of the English Language	3
		21

equirements for a Major in English

addition to all courses required for the minor, students take one of the following courses:

NGL 320	Medieval English Literature	3
NGL 322	Restoration and 18th Century Literature	3
NGL 331	English Romantic Period	3
NGL 332	Victorian Period	3
and		
NGL 472	Seminar in Literature	3
	English Elective	3
		21

Requirements for a Major in English with a Journalism Emphasis

Students take twenty-four hours of English courses (listed below) and twenty-three hours o Journalism courses which must include JOUR 200, 225, 227 and four practicums. Practicums ma be fulfilled by working either on the "Union Express" (JOUR 180 to 480) or on the **Stespean** (JOU 190 to 490) or by choosing a combination of the two practicum sets. Four additional "Unio Express" practicums and four additional **Stespean** practicums are available to students durin their junior and senior years. Only four hours of practicum may be included in the twenty-thre hour Journalism course requirement.

		Semester Hour
ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 241	Major American Writers I	3
ENGL 242	Major American Writers II	3
ENGL 311	Intermediate Composition	3
ENGL 401 or	Modern Grammar	
ENGL 421 or	History of the English Language	3
ENGL 402	Advanced Composition	
	300-400 level literature course	3
	Elective 300-400 level literature course	3
		24

Requirements for an Area in English

Forty-eight semester hours (thirty of which must satisfy the requirements for a English major including all courses required for the minor, English 402 or 419, Speech 131 and additiona courses in drama, journalism, and speech.

Students preparing to teach high school English are required to take Education 362 and shoul elect the English major, minor, or area. They should consult the Education Department for fu information about course requirements.

All students majoring or minoring in English are advised to take at least six hours of a foreig language.

ENGLISH

English 090-091. English as a Second Language. **(on demand)(0**
A preliminary, non-credit course for the foreign student seeking to acquire sufficient compe tence in listening to and speaking the English language to be able to communicate effectively i the classroom and in the college community.

English 110. Developmental English. **(F,S)(3**
Training in college-level language skills. Designed to prepare students in English 111 and othe introductory courses.

English 111. Freshman Composition I. **(F,S)(3**
Writing papers from a variety of rhetorical approaches and stressing interdisciplinary connec tions. Reading of short prose pieces as models and for discussion. Must precede English 112

English 112. Freshman Composition and Literature. **(F,S)(3**
Literary works and forms from the ancient world to the Middle Ages provide the basis for longe papers emphasizing critical writing and documentation.

A general prerequisite for 200-level courses is the successful completion of English 111 and 11 with a grade of "C" or better.

English 212. Western Literature. **(F,S,)(3**
Survey of Western Literature from early Christian era through 17th Century. *Prerequisite* English 112.

English 221, 222. Survey of English Literature. **(F,S)(3**
The first half includes the Middle Ages, the Renaissance, the Restoration and Eighteenth Century, and the second includes the Romantic and Victorian periods, and the Twentieth Century. Either course may be taken separately and not necessarily in sequence.

English 241, 242. Major American Writers. **(F,S,)(3)**
The first half (1830-90) begins with Poe and ends with Emily Dickinson, and the second (1890-1950) begins with Twain and ends with Faulkner. Either course may be taken separately and not necessarily in sequence.

English 311. Intermediate Composition. **(S)(3)**
A writing course designed to reinforce and expand writing skills. Expository and argumentative papers of substantial length and an extensive research paper. Appropriate selected readings for discussion and analysis to provide perspective for the student's own writing. *Prerequisite:* English 112 and junior or senior standing.

A general prerequisite for literature courses numbered 300 and above is the successful completion of any one of English 212, 221, 222, 241, or 242. Students are urged to consult with members of the department before enrolling for advanced work.

English 320. Medieval English Literature. **(S)(3)**
A study of notable works from selected genres of tenth to fifteenth-century literature with particular attention to Arthurian material, Chaucer, the lyric, and drama. (Odd years only.)

English 321. English Renaissance Literature. **(F)(3)**
A study of poetry, prose, and non-Shakespearean drama, beginning in the early sixteenth century and ending with Milton. (Odd years only.)

English 322. Restoration and Eighteenth Century Literature. **(S)(3)**
Prose and poetry of the neo-classical age, beginning with Dryden and his contemporaries and extending through Samuel Johnson. (Odd years only.)

English 331. English Romantic Period. **(F)(3)**
The prose and poetry of the first third of the 19th century, emphasizing the work of Wordsworth, Coleridge, Byron, Shelley, and Keats. (Even years only.)

English 332. Victorian Period. **(S)(3)**
Major poets and prose writers, emphasizing the contributions of such masters as Tennyson, Browning, and Arnold. (Even years only.)

English 351, 352. The Novel. **(F,S)(3)**
Historical study of the growth of the novel as a form. The first course includes novels from Defoe through the Brontes; the second begins ca. 1850 and goes through Faulkner. Either course may be taken separately and not necessarily in sequence. (Even years only.)

English 355. Children's and Adolescent Literature. **(F)(3)**
A course that surveys a wide variety of fiction and poetry enjoyed by children and adolescents and suggests ways of evaluating these works as literature.

English 361. Modern Poetry. **(F)(3)**
American and British poetry, with consideration of ways of reading, criticizing, and writing verse in this century. (Odd years only.)

English 372. Shakespeare. **(S)(3)**
A critical approach to selected histories, comedies, and tragedies, focusing on their timeless human, literary and dramatic qualities.

A general prerequisite for 400-level courses is junior standing.

English 401. Modern Grammar. **(F)(3)**
A survey of modern approaches to the study of language beginning with the structuralist view of linguistic analysis through the theories of generative grammar to the most recent developments in generative semantics. Considerable attention will be paid to the possibilities of practical applications of linguistic theory. (Even years only.)

English 402. Advanced Composition. **(S)(3)**
For the student who wishes to become a more competent writer. Research papers, factual narratives, argumentation, and "creative" writing are assigned according to the needs and aptitude of the student. (Even years only.)

English 419. Composition for Teachers. **(on demand)(3)**
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself.

English 421. History of the English Language. **(F)(3)**
A study of the origins and development of the English language from Anglo-Saxon times to the present. (Odd years only.)

English 472. Seminar in Literature. **(S)(3)**
Intensive study of a major writer, group, or literary topic. May be repeated once for credit.

English 495. Independent Study. **(F,S)(3)**
Intensive individual work under supervision, in some phase of English, American, or world literature linguistics, or composition not otherwise covered in the curriculum. *Prerequisites:* Twenty-four hours of English above English 111, 112, and permission of the head of the department. May be repeated for credit.

JOURNALISM

Journalism 180, 280, 380, 480. Journalism Practicum. **(F,S)(1)**
Actual operation of campus newspaper provides experience in reporting, photojournalism, and use of typesetting equipment. 380 and 480 include management. To be taken in sequence.

Journalism 190, 290, 390, 490. Journalism Practicum. **(F,S)(1)**
Actual operation of campus yearbook provides experience in the basics of photojournalism, design, typesetting, and layout. 390 and 490 include management. To be taken in sequence.

Journalism 200. Introduction to Communication. **(S)(3)**
Open to all students, this course examines communication theory and its applications in newspapers, magazines and television, the history of journalism, career opportunities and needed skills within the news industry. *Prerequisites:* English 111 and typing proficiency of 20 w.p.m.

Journalism 225. Newswriting. (Formerly English 225). **(F)(3)**
Basic course in reporting the news. Focus on information gathering, news story content formats, working under deadlines, and use of Associated Press style. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m.

Journalism 226. Feature Writing. **(S)(3)**
A basic course for journalists. Introduces feature story formats, interview techniques, staff and freelance markets in newspapers and magazines. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m. (Odd years only.)

Journalism 227. Editing, Layout. (Formerly English 227). **(F)(3)**
Basic instruction in copy editing, page layout and design, headline writing, photo handling, and outline writing.

Journalism 233. Photojournalism. **(F)(3)**
Reporting the news with a camera. Stresses composing and shooting with a 35mm camera and includes darkroom instruction and experience. Lab fee: $25. (Even years only.)

Journalism 331. Media Law and Ethics. **(F)(3)**
Examines the segment of U.S. laws which governs freedom of the press (First amendment, libel, invasion of privacy, pornography/obscenity). Reviews press ethicists and applies their theories to print and broadcast media. (Even years only.)

Journalism 332. Editorial and Public Relations Writing. **(on demand)(3)**
The specialized area of opinion journalism is the focus of this course. Introduces the six categories of editorials, advocacy journalism, editorial cartoons, press released, and writing for organizations. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 333. Sports Writing. **(on demand)(3)**
Focuses on news and feature coverage of sports events, personalities and trends. Examines techniques for interviewing, analyzing statistics, and acquiring sports information. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 340. Advanced Newswriting. **(S)(3)**
Gathering and writing news in depth on current issues and concerns. Stresses awareness of local, state, national, and world events, and techniques of investigative reporting. *Prerequisite:* Journalism 225. (Odd years only.)

Journalism 345. Print Design, Production, Typography I. **(F)(3)**
Creative and practical aspects of designing and preparing materials in print. Experience in use of photographic print shop equipment. Lab fee: $20. *Prerequisite:* typing proficiency of 20 w.p.m. (Even years only.)

Journalism 346. Print Design, Production, Typography II. **(S)(3)**
In-depth continuation of Journalism 345. Lab fee: $20. *Prerequisite:* Journalism 345. (Even years only.)

Journalism 450. Seminar in Journalism. **(S)(3)**
Intensive study of journalism issues, including, but not limited to, press freedom, copyright, libel, slander, fair comment, evolution of print media and its current concerns. *Prerequisites:* twelve hours of journalism, Junior or Senior status and recommendations of course instructor. (Even years only.)

Journalism 485. Internship. **(4)**
Professional experience with an area organization in writing, photography, editing, or design. *Prerequisites:* Fourteen hours of journalism, Junior or Senior status and recommendation of journalism instructor.

Journalism 486, 487, 488, 489. Journalism Practicum. **(F,S)(1)**
Position of high level responsibility on campus newspaper provides continued experience in editing, layout, and newspaper management. *Prerequisite:* Journalism 480.

Journalism 492, 493, 496, 497. Journalism Practicum. **(F,S)(1)**
Position of high level responsibility on campus yearbook provides continued experience in photojournalism, layout, and yearbook management. *Prerequisite:* Journalism 490.

FRENCH

The program offers the opportunity to gain some understanding of France and its culture as well as a basic knowledge of the French language. Students offering more than one entrance unit in French and students transferring from other colleges should consult with the instructor before registering for any course in French.

French 111. Elementary French I. **(F)(3)**
Basic French grammar; simple reading, practice in the oral and written language.

French 112. Elementary French II. **(S)(3)**
Continuation of French 111. *Prerequisite:* French 111 or equivalent.

French 211. Intermediate French I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* French 112 or equivalent.

French 212. Intermediate French II. **(S)(3)**
Continuation of French 211. *Prerequisite:* French 211 or equivalent.

French 331. French Civilization. **(S)(3)**
The economic, social, and cultural development of France, French contributions to world civilization. May not count toward fulfillment of the language requirement. **No knowledge of French required.** (Even years only.)

French 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of French literature or civilization. May be repeated for credit.

GERMAN

The program offers the opportunity to gain some understanding of Germany and its culture as well as a basic knowledge of the German language. Students offering more than one entrance unit in German and students transferring from other colleges should consult with the instructor before registering for any course in German.

German 111. Elementary German I. **(F)(3)**
Basic German grammar; simple reading; practice in the oral and written language.

German 112. Elementary German II. **(S)(3)**
Continuation of German 111. *Prerequisite:* German 111 or equivalent.

German 211. Intermediate German I. **(F)(3)**
More detailed study of grammatical structure, reading of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* German 112 or equivalent.

German 212. Intermediate German II. **(S)(3)**
Continuation of German 211. *Prerequisite:* German 211 or equivalent.

German 331. German Civilization. **(S)(3)**
The economic, social, and cultural development of Germany; German contributions to world civilization. May not count as part of the language requirement. **No knowledge of German required.** (Odd years only.)

German 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of German literature or civilization. May be repeated for credit.

SPANISH

The program offers the opportunity to gain some understanding of Spain and its culture as well as a basic knowledge of the Spanish language. Students offering more than one entrance unit in Spanish and students transferring from other colleges should consult with the instructor before registering for any course in Spanish.

Spanish 111. Elementary Spanish I. **(F)(3)**
Basic Spanish grammar; simple reading; practice in the oral and written language; cultural background.

Spanish 112. Elementary Spanish II. **(S)(3)**
Continuation of Spanish 111. *Prerequisite:* Spanish 111 or equivalent.

Spanish 211. Intermediate Spanish I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* Spanish 112 or equivalent. (Even years only.)

Spanish 212. Intermediate Spanish II. **(S)(3)**
Continuation of Spanish 211. *Prerequisite:* Spanish 211 or equivalent. (Even years only.)

II. DEPARTMENT OF MUSIC AND FINE ARTS

Betty S. Stroud, *Department Head*
Art — Drama and Speech — Music

ART

Union College course offerings in the field of art provide service courses for several curricula and opportunities for exploration and growth in artistic self-expression.

Art 132. Introduction to Art. **(S)(3)**
An introduction to Art outlining basic approaches, principles, techniques and media as well as styles of expression, both past and present.

Art 271. Elementary School Art. **(F)(3)**
A studio course involving many kinds of art projects in media suitable to and practicable for elementary grades.

Art 273. Art History. **(on demand)(3)**
The intensive study of major movements, personalities, and styles of architecture, painting and sculpture of world art.

Art 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

DRAMA AND SPEECH

Requirements for a Major: Union College offers a comprehensive major with two options. Students may major in either Drama/Speech or Drama. Other than the Speech courses required for the first option, there is very little difference between the two.

Core courses required for the major include Drama 251, 331, 332, 352, 365, 366, and 451; a total of twenty-one semester hours.

Students electing the Drama/Speech option are also required to take twelve hours in approved courses in Speech, including Speech 131, and three hours of upper division dramatic literature courses.

Students electing the Drama option are also required to take six hours of upper division dramatic literature courses and Drama 461.

Requirements of a Minor in Drama and Speech: Twenty-one semester hours, including Drama 251, 331 or 332, 365, 366 and Speech 131, 231. Cannot be used for a teaching minor certificate.

Requirements for a Minor in Drama: Twenty-one semester hours in Drama, including Drama 251, 331, 332, 365, 366. Can be used for teacher certification.

Drama 131. Introduction to the Theatre. **(F)(3)**
A broad overview of the history of theatre and drama as well as an introductory study of acting, designing, and directing.

Drama 180, 280, 380, 480. Theatre Practicum. **(F,S)(1)**
Actual practical experience in Union College Theatre productions in either performance or technical areas.

Drama 251. Fundamentals of Acting. **(S)(3)**
An introduction to the Stanislavsky system of acting involving exercises, analysis, and performance of short scenes.

Drama 321. European Drama Since 1945. **(on demand)(3)**
A study of representative plays in translation by modern writers from Germany, France, Italy, and Poland.

Drama 331. Scene and Light Design. **(F)(3)**
Fundamentals of set and light design for the stage. Practical study of set construction and lighting equipment. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 332. Costume and Make-up Design. **(S)(3)**
Fundamentals of costume design for the stage. Practical study of costume construction and application of stage make-up. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 352. Advanced Acting. **(on demand)(3)**
Analysis and performance of scenes from contemporary drama and Shakespeare. *Prerequisite:* Drama 251 or permission of instructor.

Drama 365. History of the Theatre to 1642. **(F)(3)**
A study of the theatre, drama, and criticism from the Greeks to 1642. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 366. History of the Theatre from 1642. **(S)(3)**
A study of the theatre, drama, and criticism from 1642 to the present. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 451. Directing. **(on demand)(3)**
Study of directing techniques, and script analysis culminating in the staging of a one-act play. *Prerequisite:* Permission of instructor.

Drama 461. Senior Project in Theatre/Drama. **(on demand)(3)**
A supervised project involving advanced work in some area of Theatre/Drama: criticism, history, directing, designing or performing. Open only to students majoring in Drama.

Drama 495. Independent Study in Drama. **(on demand)(3)**
Independent study or research on approved topics.

Speech 131. Fundamentals of Speech. **(F)(3)**
Study and practice of gathering and organizing material for informative and persuasive speeches.

Speech 231. Oral Interpretation of Literature. **(S)(3)**
Analysis and performance of narrative prose, poetry, and drama.

Speech 341. Debate. **(on demand)(3)**
The study and practice of formal debate. Case preparation and methods of organization using the national college debate topic for the year. Designed to help students think more clearly, organize their ideas more effectively, and present their conclusions more persuasively.

Speech 342. Persuasion. **(on demand)(3)**
This course serves to acquaint students with the theory and practice of persuasive techniques. Students will develop their own powers of persuasion and learn to recognize the rhetorical techniques employed by others.

MUSIC

Objectives:

1. To provide the required curricula for the Bachelor of Arts and the Bachelor of Science in Music, the Bachelor of Music in Church Music, the Bachelor of Music in Music Education.
2. To offer group and private instruction which provides for the development of individual musicianship of the music major and music minor.
3. To offer opportunities for participation in music ensembles and music theatre for the music majors, music minors, and general college students.
4. To provide recitals, concerts, and music theatre for the cultural enrichment of the campus and community.

Music Library: The music library, located in the Fine Arts Building, contains records, scores, and listening facilities.

DEGREES

Students majoring in music at Union College may pursue the following degree programs:

Bachelor of Music in Music Education
Bachelor of Music in Church Music
Bachelor of Arts in Music
Bachelor of Science in Music
Bachelor of Science in Music and Business

Bachelor of Music in Music Education (K-12 Certificate)

Candidates for the Bachelor of Music in Music Education will take the following courses (see also Liberal Education and graduation requirements).

(Part of general studies for music majors; prerequisite to admittance to the major in music education.)

Option I, Instrumental Emphasis *Semester Hours*

MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 161-162	Form and Analysis	4
MUSC 361-362	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174	Piano Class	2
MUSC 417	Senior Recital	1
		36

II. Professional Courses

MUSC 271	Music in the Public School	2
MUSC 373	Elementary School Music	3
MUSC 375	Instrumental Methods and Materials	2
MUSC 471	Marching Band Techniques	2
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		33

II. Additional Music Requirements

MUSC 171	String Instruments Class	1
MUSC 172	Woodwind Instruments Class	1
MUSC 175	Brass Instruments Class	1
MUSC 176	Percussion Instruments Class	1
MUSC 365	Arranging	2
MUSC 474	Instrumental Conducting	2
		8
	Total	77

Option II, Vocal Emphasis

MUSC 161-162	Foundations of Music	8

. Music Core

MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
MUSC 475	Pedagogy	2
		38

I. Professional Courses

MUSC 271	Music in the Public School	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		32

II. Additional Music Requirements

MUSC 365	Arranging	2
MUSC 473	Choral Conducting	2
		4
	Total	74
Keyboard majors:	Private Voice	2
	Total	76

Option III, Instrumental Endorsement

Completion of Option II plus an additional twelve hours organized as follows: choice of any three of the four instrumental techniques classes, 3 hours; additional applied music study in one of those areas (3 semesters), 3 hours; Instrumental Conducting, 2 hours; and four additional semesters of participation in an instrumental ensemble (for a total of six semesters), 4 hours.

Option IV, Vocal Endorsement

Completion of Option I plus an additional twelve hours organized as follows: Pedagogy — Vocal, 2 hours; Choral Conducting, 2 hours; Voice Class, 2 hours; additional applied voice study (2 semesters), 2 hours; and four additional semesters of participation in a vocal ensemble (for a total of six semesters), 1-4 hours.

Bachelor of Music in Church Music

Candidates for the Bachelor of Music in Church Music will take the following courses (see Liberal Education and graduation requirements).

I. Music Core		*Semester H*
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174 or 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
		44

II. Church Music and Professional Courses		
MUSC 231	Handbells	1
MUSC 333	Church Music Administration	2
MUSC 335	Hymnology	2
MUSC 337	Church Organs	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
MUSC 436	History and Philosophy of Church Music	2
MUSC 437	Church Music Practicum	4
		19

III. Additional Music Requirements		
MUSC 171, 172, 175	Instrumental Techniques (choose 2)	2
MUSC 462	Counterpoint	2
MUSC 473	Choral Conducting	2
MUSC 474	Instrumental Conducting	2
	Private Piano or Organ (for voice major) or Private Voice (for instrumental major)	2
		10

IV. Courses in Religion		
RLGN 111	Old Testament History, Literature and Interpretation	3
RLGN 112	New Testament History, Literature and Interpretation	3
	One 3 hour upper-level Religion course	3
		9
	Total	82

Bachelor of Arts and Bachelor of Science in Music

Candidates for the Bachelor of Arts or Bachelor of Science Degree in Music will take the following music courses (see also Liberal Education and graduation requirements):

I. Academic Emphasis

		Semester Hours
MUSC 111-212	Applied Music*	8
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
MUSC 421-422	Music History Seminar	6
	Music Elective	2
	Ensemble	0
		40

II. Applied Emphasis

MUSC 111-412	Applied Music	16
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
	Ensemble	0
		40

*Eight (8) hours of Applied music credit may include study in a secondary area, but the 212 level must be reached in the student's major applied area.

Bachelor of Science in Music and Business

Candidates for the Degree of Bachelor of Science in Music and Business will take the following courses (see also Liberal Education and graduation requirements):

I. Business Core

		Semester Hours
ACTG 271-272	Principles of Accounting I and II	6
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
BUAD 311 or 312	Business Law	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153-154	Principles of Economics	6
		27

II. Music Requirements

MUSC 111-412	Applied Music	8
MUSC 161-162	Foundations of Music	8
MUSC 171, 172, 173, 175, 176	String, Woodwind, Piano, Brass and Percussion classes (choose any 3)	3
MUSC 261-262	Harmony	6
MUSC 322	Music History	3
		28

III. Additional Business Requirements

BUAD 272	Salesmanship	3
OFAD 302	Business Communication	3
	Upper Division Business Elective	3
	Field Placement	3-10
		12-19

Minor in Music

Twenty-one semester hours, including Music 161-162; three semester hours selected from either Music 321 or 322; two semester hours of music electives; two years of ensemble; and completion of the 202-level of course numbering in one field of applied music, or eight hours of applied music arranged differently with the consent of the department.

DEPARTMENTAL REQUIREMENTS

Specific requirements for music majors and minors are listed in the Music Department Handbook. Students will be held responsible for requirements in the Handbook. More detailed information is given for the following:

1. Entrance Test: All music majors and minors entering the Department for the first time shall take a placement test in theory and functional piano. The test is for placement only, and in no way affects the entrance to music study.
2. Piano Proficiency: All candidates for the Bachelor of Music in Music Education and the Bachelor of Music in Church Music must demonstrate proficiency as required for Music 202, Applied Music Secondary, Piano.
3. Ensemble Requirements: All music majors are required to participate in a minimum of seven semesters of one ensemble within their major performance area and two semesters in another ensemble (8 of the 9 hours must be taken for credit except for those enrolled in the BA or BS curricula). All music minors are required to participate in a minimum of four semesters in an ensemble within their major performance area.
4. Recital and Concert Attendance: Attendance at departmental recitals and concerts is required of all music majors and minors during each semester of applied music study.
5. Recital Requirements: Candidates for the Bachelor of Music degree must present a full recital on their major instrument or in voice. Candidates for the Bachelor of Arts or Bachelor of Science degree in Music may be invited to present a recital by the music faculty.

APPLIED MUSIC—SECONDARY LEVEL

These courses are designed for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, a major with an academic emphasis, any music major taking lessons on a secondary instrument, and elective credit.

Music 101-102. Applied Music. **(F,S)(1-2)**
Freshman level secondary applied music study.

Music 201-202. Applied Music. **(F,S)(1-2)**
Sophomore level secondary applied music study.

Music 301-302. Applied Music. **(F,S)(1-2)**
Junior level secondary applied music study.

Music 401-402. Applied Music. **(F,S)(1-2)**
Senior level secondary applied music study.

APPLIED MUSIC—MAJOR LEVEL

These courses are designed for students enrolled in Music and Business and for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, applied emphasis, and for the Bachelor of Music in Church Music or Music Education.

Music 111-112. Applied Music. **(F,S)(1-2)**
Freshman major or minor level applied music study.

Music 211-212. Applied Music. **(F,S)(1-2)**
Sophomore major or minor level applied music study.

Music 311-312. Applied Music. **(F,S)(1-2)**
Junior major level applied music study.

Music 317. Junior Recital. **(F,S)(0-1)**

Music 411-412. Applied Music. **(F,S)(1-2)**
Senior major level applied music study.

Music 415-416. Applied Field Literature. **(on demand)(2)**
A study of the literature for the student's major instrument, and related instruments where appropriate, with attention to stylistic characteristics and ornamentation.

Music 417. Senior Recital. **(F,S)(0-1)**

Music 418-419. Sight-Reading and Accompanying. **(on demand)(1)**
Proficiency in reading the various clefs, vocal scores; and accompaniments, with emphasis on the techniques of sensitive accompanying. Keyboard majors and selected minors only.

HISTORY AND APPRECIATION

Music 121. Introduction to Music. **(F)(3)**
An historical approach to music appreciation focusing on period and style. Extensive listening to music literature. Not open to music majors or minors.

Music 122. Introduction to the History of American Popular Music. **(S)(3)**
An historical approach involving the study of styles and personalities beginning with the origins of jazz and ending with current trends and concepts. Open to all students.

Music 321, 322. Music History. **(F,S)(3)**
A study of representative music both written and recorded and readings coordinating and integrating music skills. (321) Antiquity through 1600. (322) Baroque period to the present. *Prerequisite:* Music 162.

Music 421-422. Music History Seminar. **(on demand)(3)**
Intensive study of a selected period or genre. Major paper required. Prerequisites: Music 321, 322.

CHURCH MUSIC

Music 231. Handbell Methods. **(F)(1)**
A study of the techniques, methods, materials, and repertory of English handbell ringing. *Prerequisite:* Music 162 or permission of instructor.

Music 333. Church Music Administration. **(F)(2)**
The role of the minister of music as related to the graded adult, youth, and children's choir programs, budget and calendar planning, the congregation, the multiple staff church, and the denomination.

Music 335. Hymnology. **(S)(2)**
The study and analysis of the hymns of the church, their sources, development, and usage in contemporary service.

Music 337. Church Organs. **(F)(2)**
The study of the history of the instrument, types of organs, basic upkeep, techniques, and service repertoire.

Music 436. History and Philosophy of Church Music. **(S)(2)**
A detailed, historical study of music within the church relating to its origin and development, with emphasis upon liturgies and historic philosophical positions of the church on music.

Music 437. Church Music Practicum. **(on demand)(4)**
One semester or one summer of supervised field work in an approved church. *Prerequisite:* Consent of the Music faculty.

ENSEMBLES

Music 151. Orchestra. **(F,S,)(0-1)**
Open by audition or invitation. Participation in the activities of the Chamber Orchestra of the Cumberlands, a college/community orchestra of modest size. One rehearsal per week. May be repeated for credit.

Music 152. Union College Singers. **(F,S)(0-1)**
Open by audition only; performs in chapel, Christmas concert, Spring concert, graduation, tours, and festivals. Limited to forty-nine students; four rehearsals per week. May be repeated for credit.

Music 153. Stage Band. **(F,S)(0-1)**
Open by audition only. A jazz-oriented ensemble of appropriate instrumentation limited to twenty students. One rehearsal per week. May be repeated for credit.

Music 154. Pep Band. **(F,S)(0-1)**
Open to all interested wind and percussion students. A performance group intended to give support and entertainment at home athletic events. Two rehearsals per week. May be repeated for credit.

Music 155. Brass Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 156. Collegium Musicum. **(on demand)(0-1)**
Open to interested students. A performance group intended to give the student acquaintance with less frequently performed literature. One rehearsal per week. May be repeated for credit.

Music 157. Woodwind Chamber Ensembles. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 158. String Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 159. Union College Chamber Singers. **(F,S)(0-1)**
A vocal ensemble composed of 10-20 singers whose repertory consists of choreographed popular music as well as traditional types of vocal chamber music. Open to members of the Union College Singers by audition.

THEORY

Music 161-162. Foundations of Music. **(F,S)(4)**
A combined course in the areas of music theory, history, and literature.

Music 261-262. Harmony. **(F,S)(3)**
Continuation of Music 161-162 in the area of part-writing and analysis. Advanced chromatic harmony of the middle Romantic period. *Prerequisite:* Music 162.

Music 263-264. Ear-Training. **(F,S)(1)**
Sight-singing, ear-training, and dictation to be taken concurrently with Music 261-262. Two periods per week. *Prerequisite:* Music 162.

Music 361-362. Form and Analysis. **(F,S)(2)**
The development of musical forms from small units to large. Study of large scale analytic techniques including those necessary for late 19th and 20th Century music. *Prerequisite:* Music 262.

Music 365. Arranging. **(S)(2)**
Basic techniques of orchestration and arranging. *Prerequisite:* Music 162.

Music 461-462. Counterpoint. **(461 on demand, 462 F, even years)(2)**
The vocal counterpoint of Palestrina and the instrumental counterpoint of Bach. *Prerequisite:* Music 162.

Music 465. Theory Seminar. **(on demand)(3)**
An advanced course in music theory, including a study of contemporary practices. *Prerequisites:* Music 362 and permission of the instructor.

MUSIC EDUCATION

Music 171. String Instruments Class. **(F)(1)**
Class instruction in strings. (Even years only.)

Music 172. Woodwind Instruments Class. **(S)(1)**
Class instruction in woodwinds. (Odd years only.)

lusic 173-174. Piano Class. **(F,S)(1)**
Class instruction in piano.

lusic 175. Brass Instruments Class. **(F)(1)**
Class instruction in brass. (Odd years only.)

lusic 176. Percussion Instruments Class. **(S)(1)**
Class instruction in percussion. (Even years only.)

lusic 177-178. Voice Class. **(F,S)(1)**
Class study for students who are not prepared to study at the level of private applied voice.

lusic 271. Music in the Public School. **(F)(2)**
Fundamentals of public school education with special emphasis on the philosophy and foundations of music education and the position of music within the entire curriculum. Includes directed observation of and participation in public school classroom activities.

lusic 373. Elementary School Music. **(S)(3)**
Methods and materials in the elementary school. Will include fundamental ability at the keyboard, the fundamentals of music, and library research. Includes die observation of and participation in public school classroom activities for music majors.

lusic 374. Vocal Methods for the Secondary School. **(F)(3)**
Materials, rehearsal techniques, and vocal health for the secondary school student. Includes directed observation of and participation in public school classroom activities. *Prerequisites:* Music 271 and Junior standing.

lusic 375. Instrumental Methods & Materials. **(S)(2)**
Teaching Instrumental Music in the Public Schools: Procedures, techniques, curriculum, scheduling, administration, evaluation, materials, equipment, and community relations. Includes directed observation of and participation in public school classroom activities. *Prerequisites:* Music 171, 172, 175, 176, 271, and Junior standing.

lusic 471. Marching Band Techniques. **(F)(2)**
Functions, organization, and direction of a school marching band program. *Prerequisites:* Music 271 and Junior standing.

lusic 473. Choral Conducting. **(F)(2)**
Techniques and literature. (Odd years only.)

lusic 474. Instrumental Conducting. **(F)(2)**
Techniques and literature. (Even years only.)

lusic 475. Pedagogy. **(on demand)(2)**
Techniques and principles of private and class instruction, emphasis on recommended materials.

INDEPENDENT STUDY

lusic 495. Independent Study. **(F,S)(2-3)**
Independent study and/or research on approved topics. *Prerequisite:* Permission of the student's major professor. May be repeated for credit.

III. DEPARTMENT OF RELIGION AND PHILOSOPHY

Michael McCoy, *Department Head*
Christian Education — Religion — Philosophy

Courses in this Department are designed to acquaint students with the Judaeo-Christian adition and the other great religious traditions and with the great traditions and disciplines of uman thought; to deepen their awareness of themselves and of the human community; to ultivate their powers of critical examination of and the meaning and direction of human xistence.

Studies in religion are especially recommended for students of art, history, and literature, and or students preparing for Christian vocations.

Studies in philosophy are especially recommended for pre-professional education for such ocations as the Christian ministry, college teaching, law, journalism, creative writing, and art, as ell as for students of history, literature, and the sciences.

CHRISTIAN EDUCATION

In recognition of increasing demand for trained young men and women as full-time Christia workers in the ministry of the local church, to serve in the capacities of pastor's assistant, directo of youth work, or Director of Christian Education, a specific four-year course of study has bee arranged, using the facilities of various departments. It is designed to meet the basic needs o students who wish to go directly into church positions without graduate work.

A 24-hour major is recommended in Religion, including Religion 222, plus courses in musi drama, and Appalachian studies. A second major or minor in drama or music is often helpful. Th following three courses should supplement this major:

Speech 131. Fundamentals of Speech
Physical Education 321. Recreational Leadership
Psychology 402. Counseling Theories and Techniques.

RELIGION

Requirements for a Major: The twenty-four hour major, recommended for Christian Educatio and pre-ministerial students, must include Religion 111, 112, 311, plus Philosophy 261. The thirty hour major may include Philosophy 371.

Requirements for a Minor: Twenty-one semester hours, at least nine of which must be i courses numbered above 300.

Religion 101. Conference Studies. **(on demand)(3**
A study of books required by the Methodist Church for the local preacher's license. Required o all recipients of ministerial loan-grants who have not yet obtained the license to preach.

Religion 111. Old Testament History, Literature, and Interpretation. **(F)(3**
The history of Israel from the earliest times to the Maccabean Age. Historical and literar criticism and religious significance of the emergence of Judaism.

Religion 112. New Testament History, Literature, and Interpretation. **(S)(3**
Attention to author, date, origin, historical and religious significance. *Prerequisite:* Religion 11 recommended.

Religion 131. World Religions. **(S)(3**
A descriptive account of the faith and practices of present-day world religions, with emphas on Hinduism, Buddhism, Confucianism, and Islam.

Religion 201-202. Elementary New Testament Greek. **(F,S)(3**
A semi-inductive approach to koine Greek recommended for persons interested in religion a well as for religion majors.

Religion 212. Old Testament Prophets. **(F)(3**
The nature of prophecy and the prophetic movement in Israel from its beginning with Moses t its close with the book of Jonah. (Even years only.)

Religion 222. Administration and Education in the Local Church. **(S)(3**
Administrative responsibilities of the Director of Christian Education as related to the pasto local church governing body, and the congregation. Theory and practice of Christia Education with special attention to planning a year's program in the local church.

Religion 231. The Life and Teachings of Jesus. **(S)(3**
The world into which Jesus was born and an interpretation of his messianic consciousnes personality, activities, and teachings. *Prerequisite:* Religion 112 recommended. (Even yea only.)

Religion 241. The Life and Teachings of Paul. **(F)(3**
The world of Paul, his life, teachings, and significance, using his letters as the primary sourc *Prerequisite:* Religion 112 recommended. (Even years only.)

Religion 301-302. Elementary Old Testament Hebrew. **(F,S)(3**
A study of sufficient grammar to read simple Old Testament passages, recommended fo persons interested in religion as well as for religion majors.

Religion 311. Introduction to Christian Thought. **(S)(3**
Examination of tradition and contemporary understanding of the Christian faith, with emphas on the nature of God and of man; the significance of Christ and the Church; the relation o religion to morality; the meaning of Creation and Redemption; and the interpretation of Huma Destiny. *Prerequisite:* Religion 112. (Even years only.)

eligion 327. Archaeology and the Bible. **(S)(3)**
Archaeological discoveries related to the Old and New Testament eras, supplemented by wide reading in books, magazines and newspapers, and class reports, color slides and movies.

eligion 353. Church History. **(on demand)(3)**
The origin and development of the Christian Church from its beginning through the Reformation.

eligion 479. Seminar in Religion. **(on demand)(3)**
Intensive study of a special subject with oral and written reports. Possible topics include The Fourth Gospel, Apocalyptic Literature, Pauline Theology, Wisdom Literature, The Apostolic Period. *Prerequisites:* Advanced standing and permission of the instructor.

eligion 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY

Requirements for a Minor. Twenty-one semester hours.

hilosophy 151. Introduction to Philosophy. **(F,S)(3)**
Both a study of the nature of philosophy, its aims, problems, and methods, and an exercise in philosophizing in which the student clarifies constructively and evaluates critically his own and other understandings of life.

hilosophy 202. Logic. **(S)(3)**
Cultivation of rational acuity through an examination of the procedures and limits of rational discourse. (Odd years only.)

hilosophy 261. Philosophy of Religion. **(F)(3)**
An introduction to basic modern concepts, issues, and methods in the philosophical examination of religion. (Odd years only.)

hilosophy 371. Ethics. **(F)(3)**
Cultivation of reasoning in moral decision-making through an examination of traditional ethical theories, contemporary moral issues and the structure of moral decision.

hilosophy 376. History of Western Philosophy I: Ancient and Medieval. **(on demand)(3)**
Philosophical thinking in its cultural context, from its birth through the classical and medieval eras.

hilosophy 377. History of Western Philosophy II: Modern. **(on demand)(3)**
The rise and development of modern thought-forms through the nineteenth century.

hilosophy 378. History of Western Philosophy III: Contemporary. **(on demand)(3)**
Twentieth century western thinking and its nineteenth century backgrounds, with particular reference to modern idealism, phenomenology, existentialism, pragmatism and the analytical movement. *Prerequisite:* any philosophy course.

hilosophy 479. Seminar in Philosophy. **(on demand)(3)**
Intensive study of a special topic such as Epistemology, Metaphysics, Plato, Kant. *Prerequisite:* Permission of instructor.

hilosophy 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

DIVISION OF NATURAL SCIENCES

Robert W. Swanson, *Chairperson*
Biology — Chemistry — Environmental Studies
General Science — Mathematics — Physics

PRE-PROFESSIONAL PROGRAMS

Since professional schools vary considerably in their admission requirements, the student advised to select the professional school he wishes to attend later, and then choose pre professional courses accordingly. The science faculty should be consulted before registration i order to assist the student in preparing a course schedule. For details of a specific program, th following faculty members should be consulted.

Dentistry — Rosen
Engineering — Carter, Pfeiffer
Medical Technology — Rosen
Medicine — Khatri, Vancil
Optometry — Rosen
Pharmacy — Khatri
Physical Therapy — Rosen
Science Education — Swanson
Veterinary Medicine — Rosen

PHYSICAL THERAPY

Union College provides a two year curriculum which allows students to complete course required for entrance into the Physical Therapists Assistant (PTA) program at Jefferson Com munity College in Louisville or the Physical Therapy Program at the University of Kentucky i Lexington.

Union College and Jefferson Community College have entered into an agreement whereb students from southeastern Kentucky may work toward an Associate of Applied Science degre and qualify to be a PTA. The student will take courses at Union College during the first two yea and complete the program at Jefferson Community College during the third year. Jefferso Community College reserves two positions annually for qualified Union College students. T qualify for graduation from this program, a student must also present a Red Cross First Ai Certificate earned within the last four years. Students who enter this program will be asked to stat in writing their intent to return to southeastern Kentucky to work as PTA's.

The Department of Physical Therapy at the University of Kentucky has approved Union coursework for the two year Pre-Professional Phase of their program. Admission to the Profes sional Phase at the University of Kentucky is based on competition and is not guaranteed.

DEGREE IN MEDICAL TECHNOLOGY

Union College has cooperative agreements with University of Louisville and The Methodi Hospital of Kentucky, Pikeville, in which the student attends Union College for three years an upon acceptance, enters the cooperating institution and receives clinical training in medica technology for twelve months. On satisfactory completion of the program the student is awarde a bachelor's degree in medical technology and should be qualified for a national certifyin examination.

COMBINED DEGREE IN ENGINEERING

A Cooperative "Three-Two Plan" has been worked out with the University of Kentucky an Auburn University in which the student attends Union College for three years pursuing certai pre-engineering courses in addition to a solid program in liberal arts. At the end of the three years upon the recommendation of Union College, the student enters the cooperating university or an accredited engineering school as a junior and in two additional years completes all the require ments for the B.S. degree in Engineering. Both the B.A. or B.S. from Union College and a B.S. i Engineering from the cooperating university are awarded at the end of the fifth year.

COMBINED DEGREES IN HEALTH SCIENCES

Students may elect a Bachelor's degree in pre-professional studies at Union College or may arrange for transfer to accredited medical, dental, veterinary medicine, optometry, or medical technology schools for their professional work after three years. On completion of the professional studies, they will also be awarded their Bachelor's degree from Union College. (See the section on Combined Degrees.)

SCIENCE EDUCATION MAJORS (SPECIALIZATION COMPONENT FOR CERTIFICATION)

Students who wish to teach secondary science may choose one of the following three programs: (A) A Major (30 hours) in one of the sciences plus a certifiable minor in one of the other sciences or mathematics; (B) A mathematics-physical science area of certification; (C) A science area of concentration. Those seeking certification in the middle grades also have available an area of specialization in science.

1. AREA OF CONCENTRATION IN MATHEMATICS-PHYSICAL SCIENCE

A total of 48 semester hours are required including:

		Semester Hours
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
CHEM 212 OR	Quantitative Analysis	
CHEM 411	Inorganic Chemistry	4
CHEM 311	Organic Chemistry	4
MATH 241-242	Calculus and Analytic Geometry	8
MATH 331	Introduction to Linear Algebra	3
	Mathematics elective	4
PHYS 211-212	General Physics	8
PHYS 213-214	General Physics Laboratory	2
	Physics electives	7
		48

At least 18 semester hours must be in courses numbered 300 or above. General Science 471 is highly recommended and may be counted in this 18 hour requirement. Students who choose this area are urged to exceed the minimum semester hour requirement and complete 21 semester hours in each of two of the three fields (chemistry, mathematics, and physics).

2. AREA OF CONCENTRATION IN SCIENCE

A total of 48 semester hours are required including:

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232 OR	General Zoology	
BIOL 330	Anatomy and Histology	4
BIOL 233 OR	General Botany	
BIOL 321	Field Biology	3-4
CHEM 111-112	General Chemistry	6
CHEM 131	General Chemistry Laboratory	1
ENVS 110	Physical Systems of the Environment	4
ENVS 350	Man's Geologic Environment	4
GNSC 471	Science Seminar	1
PHYS 211-212	General Physics	8
PHYS 213	General Physics Laboratory	1
		36-37

Also included must be a minor in either biology, chemistry or physics. At least 18 semester hours must be in courses numbered 300 or above.

3. TEACHING MINORS

A teacher education student who selects a minor in biology, chemistry or physics is required to complete one of the following: the area of concentration in science; the area of concentration in mathematics-physical science; or a teaching major in either mathematics, biology, chemistry, or physics.

4. MIDDLE GRADES CERTIFICATION
A minimum of 24 semester hours are required including:

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232 OR	General Zoology	
BIOL 233 OR	General Botany	
BIOL 330 OR	Anatomy and Histology	
BIOL 331	Human Physiology	4
CHEM 111	General Chemistry	3
CHEM 131	General Chemistry Laboratory	1
ENVS 350	Man's Geologic Environment	4
PHYS 105	Astronomy	4
PHYS 111-113 OR	Elements of General Physics/Lab	
PHYS 112-114	Elements of General Physics/Lab	4
		24

BIOLOGY

Requirements for a Major: A major in Biology consists of the courses listed below plus an additional 8 hours in Biology.

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232	General Zoology	4
BIOL 233	General Botany	4
BIOL 361	Genetics	4
BIOL 431 OR	Cell Biology	
CHEM 421	Biochemistry	3
BIOL 441	Ecology	4
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
GNSC 471	Science Seminar	1
MATH 111	College Algebra and Trigonometry	4
MATH 211 OR	Basic Statistics	
BHSC 245	Basic Statistics: Theory and Application	3
One of the following groups of Physics courses		7-9
PHYS 111-112	Elements of General Physics	
PHYS 113 OR	Elements of General Physics Laboratory	
PHYS 211-212	General Physics	
PHYS 213	General Physics Laboratory	

Biology 234 and 331 are highly recommended as electives for students seeking secondary certification. Recommended additional cognates consist of Mathematics 241 and Chemistry 212 311-312.

Requirements for a Minor: Twenty-four semester hours in Biology are required. Biology 111 232 and 233 must be included. Students seeking secondary certification must complete either the area of concentration in science or major in mathematics, chemistry or physics.

Biology 109. Elements of Biology. **(F,S,Sum)(3)**
A course designed as an introduction to the principles of biology for non-science majors through a survey of the major animal and plant groups. Those groups characteristic of south-eastern Kentucky will be emphasized with attention to their adaptations to natural habitats.

Biology 110. Elements of Biology Laboratory. **(F,S)(1)**
Optional laboratory course to accompany Biology 109. No credit will be given for Biology 110 without simultaneous or prior successful completion of Biology 109.

Biology 111. Introduction to Biology. **(F)(4)**
A course emphasizing general concepts of modern biology for majors and non-majors. Topics surveyed include cell biology, bioenergetics, molecular and Medelian genetics, reproduction, development, evolution and ecology. Human relevance is stressed. Laboratory work is included. This course is a prerequisite to all other courses in biology. *Prerequisites:* High school

biology and chemistry strongly recommended; ACT Natural Science score of 25 or higher recommended for freshmen.

Biology 151. Medical Terminology. **(F)(2)**
The study of the specialized terminology of medical science. Recommended for pre-professional students, biology majors, allied health students, and students in other health-related fields. Those seeking secondary certification cannot count this course toward certification requirements. This course does not meet the biological science requirement for teacher education. (Odd years only.)

Biology 232. General Zoology. **(F)(4)**
A survey of the animal kingdom with emphasis on diversity, evolution, and environmental relationships. Additional topics include energy metabolism, taxonomy, reproduction, population phenomena, behavior and sociology.

Biology 233. General Botany. **(S)(4)**
A survey of the plant kingdom from the blue-green algae through the flowering plants. Emphasis is given to morphology and to evolutionary relationships. Appropriate discussions of plant physiology, plant taxonomy, and human economic importance are included.

Biology 234. Microbiology. **(S)(4)**
An introduction to the classification, morphology, physiology, and genetics of the bacteria, fungi, viruses, and micrometazoans, as well as their roles in nature, health, and industry. Laboratory work stresses techniques for the culture and identification of microorganisms. A portion of the course is devoted to immunology. *Prerequisites:* Biology 111 and Chemistry 111. (Even years only.)

Biology 315. Vertebrate Biology. **(on demand)(4)**
The anatomy, physiology, taxonomy, ecology, behavior, and evolution of the vertebrate phyla with emphasis on the species endemic to southeastern Kentucky.

Biology 321. Field Biology. **(S)(3)**
Field investigations including observation, collection, and identification of local fauna and flora are offered under discrete course headings including: Limnology, Ornithology, Entomology, Local Flora, Dendrology, and Mycology. Pertinent field data are collected and analyzed appropriately. Two one-hour lectures and one three-hour laboratory session per week. (Even years only.)

Biology 330. Anatomy and Histology. **(F)(4)**
A study of the tissues, organs, and organ systems of vertebrates with emphasis on the human body in health-related sciences. (Odd years only.)

Biology 331. Human Physiology. **(S)(4)**
A study of the functioning of the human organ systems with normal and clinical considerations. *Prerequisites:* Chemistry 112 and 132. (Odd years only.)

Biology 350. Parasitology. **(F)(4)**
An intense study of protozoan and metazoan parasites with an emphasis on morphology, life cycles, pathology and control. The laboratory component emphasizes methods used to 1) necropsy host animals, 2) prepare parasites for identification, and 3) analyze host pathology by employing histological techniques. A slide collection of various parasites is required. *Prerequisites:* Biology 111 and 232. (Even years only.)

Biology 361. Genetics. **(F)(4)**
A study of the principles of inheritance including Mendelian, population, and cytogenetics. *Prerequisites:* Math 111 and 211 (or Behavioral Science 245).

Biology 431. Cell Biology. **(F)(3)**
An indepth survey of the structure and function of a wide range of living cells with consideration of biochemical and biophysical bases of this structure and function. Certain characteristics of viruses are also considered. *Prerequisites:* Chemistry 112, 132; Biology 111, 232 and 233. Prior completion of Chemistry 311 and Biology 234 is desirable. (Even years only.)

Biology 441. Ecology. **(S)(4)**
A study of the relationships between organisms and their abiotic and biotic environment including biogeochemical cycles, population dynamics, diversity, and pollution of terrestrial and aquatic ecosystems. *Prerequisites:* Biology 232 and 233. Completion of Biology 361 is recommended.

Biology 495. Independent Study and Research. **(F,S)(1-3)**
An introduction to the methods of science through original research. For advanced students who have demonstrated potential for performing an independent investigation of a substantive problem. The problem is chosen and carried out in collaboration with the instructor. A typewritten report in publication style is required.

CHEMISTRY

Requirements for a Major: Thirty semester hours of Chemistry including Chemistry 111, 112, 131, 132, 212, 311, 312, and 342. Science cognates consist of Physics 211, 212, 213, 214, 311; Mathematics 241, 242; and General Science 471.

Requirements for a Minor. Twenty-one semester hours including Chemistry 111, 112, 131, 132, 311 and either 212 or 411.

Chemistry 111-112. General Chemistry. **(F,S)(3)**
A systematic study of the fundamentals and applications of the experimental and theoretical laws of chemistry. Major topics include nomenclature, stoichiometry, chemical thermodynamics, equilibrium, acid-base reactions, atomic and molecular theory and structure, chemical kinetics and nuclear chemistry. Examples and problems are drawn from all areas of chemistry. Concurrent registration in General Chemistry Laboratory, Chemistry 131-132, is highly recommended for all students. *Prerequisite:* Mathematics 111 which may be taken concurrently.

Chemistry 131-132. General Chemistry Laboratory. **(F,S)(1)**
Laboratory experiments in general chemistry that illustrate basic principles and develop laboratory skills. Experiments are coordinated with the General Chemistry topics. Inorganic qualitative analysis is included in Chemistry 132. Three hours of laboratory per week. Concurrent registration of previous completion of Chemistry 111-112 is required. No credit may be received for Chemistry Laboratory 131-132 without the simultaneous or prior completion of the corresponding lecture courses Chemistry 111-112.

Chemistry 212. Quantitative Analysis. **(F)(4)**
A study of important volumetric and gravimetric analyses presented from a modern theoretical standpoint. Also an introduction to the study of advanced methods of analysis including some newer instrumentation techniques. *Prerequisites:* Chemistry 112 and 132.

Chemistry 311-312. Organic Chemistry. **(F,S)(4)**
A course in the chemistry of organic compounds. Unitized laboratory work is designed to illustrate the basic principles of organic chemistry. *Prerequisites:* Chemistry 112 and 132.

Chemistry 342. Physical Chemistry. **(S)(4)**
A study of atomic structures and chemical bonding in terms of modern quantum theory. Topics include molecular spectra, physical methods of investigation and chemical kinetics. *Prerequisites:* Mathematics 242 and Physics 212. (Even years only.)

Chemistry 411. Inorganic Chemistry. **(S)(4)**
A systematic study of the structure, properties and reactions of non-carbon elements, with emphasis on the non-metals and the transition metals. Topics include atomic-molecular structure and bonding, physical methods of investigation, organometallic chemistry and bioinorganic chemistry. *Prerequisite:* Chemistry 312. (Odd years only.)

Chemistry 421. Biochemistry. **(on demand)(3)**
Study of chemistry, energetics and metabolism of biomolecules, such as, carbohydrates, proteins, lipids, nucleic acids, enzymes and vitamins with reference to living systems. *Prerequisite:* Chemistry 312.

Chemistry 495. Special Problems. **(F,S)(3)**
This is an introduction to the methods of scientific research. The course is designed for the advanced student who has demonstrated ability to do independent work in Chemistry. It will consist of a particular problem decided upon after consultation with the instructor. Upon conclusion of the work a typewritten and bound report-thesis may be required. An examination may or may not be given, depending on the nature of the problem.

ENVIRONMENTAL STUDIES

Requirements for a Minor. Twenty-four hours, to be chosen by the student, the student's major advisor, and an advisor from Environmental Studies. Courses are also listed under the various departments to which they relate. The required core: Environmental Studies 101 and 313, Biology 109 or 111, and Economics 251. The remainder of the courses are to be chosen from other Environmental Studies courses or the following recommended electives: Biology 315, 321, 441; Geography 241; Mathematics 125; Philosophy 371; Sociology 311, 371, 421 and certain experimental courses.

Environmental Studies 101. Man and the Environment. **(F)(3)**
A multi-disciplinary course in which basic ecological principles are developed and used to show human impact on natural eco-systems. Topics include endangered species, impact of population growth, land use and the management problems, food production and demands.

Environmental Studies 110. Physical Systems of the Environment. **(S)(4)**
A study of the physical environment as the home of man. Emphasis on distribution and interaction of environmental variables (weather, landforms, vegetation, soils, and climate). This course may be used to fulfill the physical science requirement for students seeking teacher certification. Laboratory activities included.

Environmental Studies 113. Geology of Coal. **(S)(3)**
Introduction to Physical Geology, with an emphasis on the geology of coal; environmental problems and energy needs will be explored.

Environmental Studies 244. Reclamation and Land Use. **(S)(3)**
A detailed study of how surface mining affects the natural environment and processes used to reclaim the land and restore it to a natural and/or useful state.

Environmental Studies 313. Environmental Policy. **(F)(3)**
A study of the decision-making processes and the consequences of alternative courses of action on environmental quality. Analyzes the impact of public opinion, the various branches of government and pressure groups on environmental/energy policies at the federal and state levels. *Prerequisites:* Environmental Studies 101 and an introduction political science course, or permission of instructor. (Odd years only.)

Environmental Studies 350. Man's Geologic Environment. **(S)(4)**
Significance of regional and local geological features and processes in land use planning. Use of geological information to reduce conflicts in utilization of mineral and water resources and damage due to natural hazards. *Prerequisites:* Environmental Studies 110 or 113. (Odd years only.)

Environmental Studies 469. The Appalachian Environment. **(Sum)(3)**
Conservation of natural resources including soil, water, wildlife and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. *Prerequisites:* Two courses in environmental studies or biology and an introductory economics course.

Environmental Studies 487. Field Practicum in Environmental Studies.

GENERAL SCIENCE

Neither a major nor a minor is offered.

General Science 124. Introduction to Physical Therapy. **(S)(2)**
A general orientation to the historical background, philosophy and professional ethics of physical therapy, interprofessional relationships between members of the health care team; concepts of health and disease; overview of the total medical spectrum, medical technology, modalities used in physical therapy, and orientation to clinical service departments and their administration.

General Science 401. Science: Concepts, Processes and Inquiry. **(S)(3)**
The student will examine the processes science such as collecting data, measuring, predicting, formulating hypotheses, experimenting, etc. As materials from such programs as ESS, SCIS IME, IIS, ISCS, PSSC, etc., are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching science will be stressed along with individualized instruction, learning theory, laboratory equipment use (commercial and home-made) and multimedia instruction. *Prerequisite:* Admission to Teacher Education Program.

General Science 471. Science Seminar. **(S)(1**
A lecture/discussion of selected topics of interest, lead by faculty members of the Division o Natural Sciences, invited speakers, and student participants. May be repeated once; a studen can earn a maximum of two credit hours through this course. All natural science majors mus take this course at least once. *Prerequisite:* Natural science major with Junior or Senio standing, or permission of the instructor.

MATHEMATICS

Requirements for a Major: Thirty semester hours consisting of mathematics courses numbered 241 and above; Physics 211, 212, 213, and 214.

Requirements for a Minor: Twenty-one semester hours consisting of mathematics courses numbered 241 and above, and including Mathematics 241 and 242. Mathematics 203 and 204 are also required in addition to the minor for students seeking middle grade or secondary certification.

Requirements for a Minor in Math Education: Twenty-five semester hours including Mathematics 203, 204, 211, 241, 250 and 331. Computer Information Systems 231 is also required Behavioral Science 245 or Mathematics 372 may be substituted for Mathematics 211.

Mathematics 100. Elements of Mathematics. **(F,S)(3**
This course is intended for students who need to improve their arithmetic and elementary algebra skills to take other mathematics courses or courses requiring quantitative reasoning The course includes a brief review of whole number arithmetic (particularly prime factorization exponents, and perfect squares), an extensive review of fractions, decimals, ratio and proportion, percent, and an introduction to algebra (including arithmetic of integers, algebraic expression, and linear equations).

Mathematics 108. Intermediate Algebra. **(F)(3**
This course is intended for students with a weak background in high school algebra who want to know more about the subject and/or plan to take Mathematics 111, College Algebra and Trigonometry. The course includes a review of the real number system (particularly integers and irrational numbers), operations with polynomials, operations with algebraic fractions simplification of radical expressions, solutions of equations and inequalities (linear quadratic higher order, and simultaneous), and an introduction to graphs and functions. *Prerequisite* Successful performance on entrance exam covering arithmetic and elementary algebra (given on first day of class).

Mathematics 111. College Algebra and Trigonometry. **(F,S)(4**
Brief review of intermediate algebra including expressions, equations, and inequalities; graphs of relations; functions as a specific type of relation; graphs of functions; systematic graphing combining functions and finding inverses; exponential and logarithmic functions; solving simultaneous equations using matrix methods; right triangle trigonometry; general trigonometry; trigonometric functions, their graphs and inverses; trigonometric identities and equations

Mathematics 125. Graphic Analysis. **(F)(3**
Basic map reading for geologic and topographic maps, scaled drawings, use of planimeter excavation sections, coal tonnage estimation, methods and procedures of three-dimensional modeling from topographic maps as a basis of engineering calculations.

Mathematics 203-204. Structure of the Number System. **(F,S)(3**
Historical development of the numeration system from an intuitive to a logical approach based upon set theory, definitions of the basic operations on whole numbers and their properties extended to integers, rationals, and irrationals; study of why and how of algorithms for all operations; topics in informal geometry.

Mathematics 211. Basic Statistics. **(S)(3**
Basic concepts of descriptive and inferential statistics. Illustrations of applications in the fields of education, business, sociology, psychology, and natural science. *Prerequisite:* high-school algebra or permission of the instructor.

Mathematics 232. Surveying. **(S)(3**
Principles, calculations, and field practice in surveying, measuring distances and elevations stake method, map reading, land areas, care and use of instruments. *Prerequisite:* Mathematics 100 or equivalent, or permission of the instructor.

Mathematics 241. Introduction to Calculus and Analytic Geometry. **(S)(4)**
Inequalities, the straight line, conic sections, limits, the derivative, differentiation of algebraic functions, applications of the derivative, extrema, and the antiderivative. *Prerequisite:* Mathematics 111 or permission of instructor.

Mathematics 242. Intermediate Calculus and Analytic Geometry. **(F)(4)**
The integral, applications of the integral, logarithmic and exponential functions, trigonometric functions, hyperbolic functions, techniques of integration, L'Hospital's Rule and indeterminate forms, and improper integrals. *Prerequisite:* Mathematics 241.

Mathematics 243. Advanced Calculus and Analytic Geometry. **(S)(4)**
Topics selected from polar coordinates, vectors, solid analytic geometry, partial differentiation, multiple integration, infinite series, and differential equations. *Prerequisite:* Mathematics 242.

Mathematics 301. Plane and Analytic Geometry. **(S)(3)**
This course will be divided into three sections. Mathematical Proof: connectives, implications, truth tables, principles of proof, hypothesis, theorems. Plane Geometry: the application of the techniques of a proof to plane geometry topics non-euclidean geometry. Analytic Geometry: the cantesian plane, development of equations of a locus, equations for conic sections. *Prerequisite:* Mathematics 111 or 204. (Even years only.)

Mathematics 331. Introduction to Linear Algebra. **(F)(3)**
Vector algebra in Euclidean spaces, lines and planes in space, matrices and linear equations, groups, and rings. *Prerequisites:* Math 111 and permission of the instructor. (Odd years only.)

Mathematics 332. Linear Algebra. **(S)(3)**
Vector spaces, subspaces, linear independence, linear transformations, determinants, inner product spaces, orthogonality, and unitary transformations. *Prerequisite:* Mathematics 331. (Odd years only.)

Mathematics 333. Modern Algebra. **(on demand)(3)**
An introduction to abstract algebra including groups, subgroups, quotient groups, isomorphism theorems, rings, and ideals. *Prerequisite:* Mathematics 241 or permission of the instructor.

Mathematics 372. Probability and Mathematics Statistics. **(F)(3)**
Theoretical probability using point set approach, probability as a frequency ratio; probability for finite sample spaces; conditional probability; joint and continuous distributions, binomial distribution; Baye's theorem; statistical applications of probability; theory of sampling and variance. *Prerequisites:* Mathematics 242, which may be taken concurrently, and permission of the instructor. (Even years only.)

Mathematics 402. Functions of a Complex Variable. **(on demand)(3)**
Complex numbers, analytic functions, elementary functions of a complex variable, Cauchy's formula, Liouville's theorem, Laurent's series, residues, contour integration, conformal mapping, physical applications. (Even years only.)

Mathematics 403. Introduction to Analysis. **(on demand)(3)**
Sets and functions, topological ideas, LUB property, real sequences, continuity, mean value theorems, integration, definite integrals, Taylor's theorems, improper integrals, convergence of infinite series, power series, improper integrals with parameter. (Even years only.)

Mathematics 471. Differential Equations. **(S)(3)**
Differential equations of first order and first degree, differential equations of first order and higher degree, differential operators and linear differential equations, reduction of order. *Prerequisite:* Mathematics 242. (Even years only.)

Mathematics 495. Independent Study. **(F,S)(3)**
Independent work on topics selected to meet the student's needs. For Mathematics majors only.

COMPUTER SCIENCE

Requirements for a Minor: Twenty-one semester hours consisting of Mathematics 241, Computer Information Systems 221, 231, 250, 310, 315 and an additional Computer Information Systems course numbered 200 or above. Course descriptions are listed under Computer Information Systems.

PHYSICS

Requirements for a Major: Thirty semester hours consisting of Physics courses numbered 21 and above, including Physics 211, 212, 213, and 214. Chemistry 342 may be included in the thirty hour requirement. Science cognates consist of Chemistry 111, 112, 131 and 132; Mathematics 241, 242, 243; and General Science 471.

Requirements for a Minor: Twenty-one semester hours of physics courses numbered 211 and above, including Physics 211, 212, 213, and 214.

Physics 105. Astronomy. **(S)(4)**
An introduction to the elements of astronomy. Constellation identification, telescope operation, solar features, life and death of stars, galaxies and cosmology. Experiments and activities will illustrate telescope use, star and constellation identification, analysis of data from photographs and spectrum charts, etc.

Physics 111-112. Elements of General Physics. **(F,S)(3)**
These courses are intended for life science and non-science students. They may be taken separately and in any order. Physics 111 topics include mechanics of motion; the properties of solids, liquids, and gases; and thermal phenomena. Physics 112 topics include wave motion and vibrations; electricity and magnetism; optics; and selected topics in modern physics. Does not count toward a minor. *Prerequisite:* High school algebra or permission of the instructor.

Physics 113-114. Elements of General Physics Laboratory. **(F,S)(1)**
Laboratory experiments accompanying Physics 111 and 112 respectively to illustrate basic principles and develop laboratory skills. No credit may be received for these laboratory courses without concurrent or prior completion of the corresponding lecture course.

Physics 211-212. General Physics. **(F,S)(4)**
Mechanics of solids, liquids and gases; laws of thermodynamics; kinetic-molecular theory; vibrating bodies; wave physics; laws of Coulomb, Faraday, Ampere, Ohm, Joule, and Lenz; electromagnetism; optics. *Pre- or Corequisite:* Mathematics 242.

Physics 213-214. General Physics Laboratory. **(F,S)(1)**
A general physics laboratory course involving experiments in mechanics, heat, sound, electricity, magnetism, and optics. Experiments are coordinated with Physics 211-212.

Physics 232. Basic Electronics Laboratory. **(S)(3)**
Theory and applications of solid state devices, power supplies, motors, transformers, A.C. and D.C. circuits and diagrams, circuit protections, control circuits. *Pre- or Corequisite:* Physics 112.

Physics 310. Statics. **(S)(3)**
Study of force systems on bodies at rest. Applications of conditions of equilibrium to coplanar and space systems. Virtual work, centroids, moments of inertia, and products of inertia. *Prerequisite:* Physics 211. (Odd years only.)

Physics 311. Heat and Thermodynamics. **(F)(4)**
Thermodynamic systems and processes, equations of state, PVT surfaces and real substances, laws of thermodynamics, energy equations, enthalpy, entropy, thermodynamic potentials, application of thermodynamics to simple systems. *Prerequisites:* Physics 212 and Mathematics 243. (Even years only.)

Physics 312. Electricity and Magnetism. **(F)(4)**
Electric charges, forces, field and potential with associated magnetic forces and fields; dielectric theory; capacitance, inductance, resonance, and oscillations; series and parallel DC and AC circuits; measuring instruments; Maxwell's equations and electromagnetic waves. Four lecture hours per week. Strongly recommend prior enrollment in Physics 232. *Prerequisites:* Physics 212 and Mathematics 243 and 471. (Odd years only.)

Physics 401. Principles of Modern Physics. **(F)(3)**
Elementary concepts of quantum mechanics, selected topics in atomic and nuclear physics. *Prerequisites:* Physics 212 and Mathematics 242. (Even years only.)

Physics 411. Classical Mechanics. **(S)(3)**
Motion of a particle, systems of particles, rigid bodies; moving coordinate systems; Lagrange's equations; small oscillations. *Prerequisite:* Mathematics 243. (Even years only.)

Physics 412. Physical Optics. **(on demand)(3)**
Wave propagation and superposition; interference, diffraction, absorption, dispersion, polarization, double refraction, interaction of radiation with matter, laser theory; theory of selected optical instruments. *Prerequisite:* Physics 212.

DIVISION OF SOCIAL SCIENCES

Chairperson
Appalachian Studies and Appalachian Semester
Anthropology — Behavioral Sciences — Geography
History — Political Science — Pre-Law — Psychology
Sociology — Area in Social Studies Education

ANTHROPOLOGY

Anthropology 221. Introduction to Cultural Anthropology. **(S)(3)**
A survey of the archaeological and biological history of mankind as it relates to the development of man and his culture, with comparisons drawn between the cultures of primitive people and Western Civilizations.

Anthropology 251. North American Indian Cultures. **(F)(3)**
The historical development of North American Indian technology, and the cross-cultural study of four diverse Indian cultures at the time of White contact, will be the main focus of this course. Economics, ecology, technology, role relations, medicine, politics and conflict will be the focus of study in each culture. (Even years only.)

BEHAVIORAL SCIENCES

The two departmental courses listed below are "core" courses in the Behavioral Sciences curriculum. Both courses are required as a part of the Psychology and Sociology majors or minors.

Behavioral Science 245. Basic Statistics: Theory and Application. **(F,S)(3)**
Basic concepts of descriptive and inferential statistics, illustrations of applications in the fields of sociology, psychology, business, education, and natural science. Should demonstrate a proficiency in basic mathematics and algebra as determined by grades in Mathematics 100 or on a placement test.

Behavioral Science 341. Methods of Behavioral Science Research. **(S)(3)**
Techniques and philosophies of behavioral science research including experimental, quasi-experimental, survey, evaluation, field, and unobtrusive designs for the collection and interpretation of information.

PSYCHOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Psychology 111, 210, 352, 361 and 460.

Requirements for a Minor: Twenty-one semester hours including Behavioral Sciences 245, 341, Psychology 111, 210, and 361.

Psychology 111. Introduction to Psychology. **(F,S)(3)**
Emphasis on the study of human behavior and the ability of the individual to make adjustments to his environment.

Psychology 201. Psychology of Personal Adjustment. **(S)(3)**
Factors determining the development of personality, principles of mental health, and problems involved in the dynamics of human adjustment.

Psychology 210. Child Development. **(S)(3)**
Emphasis on recent child development theories with laboratory experiences with children on a one-to-one basis.

Psychology 330. Social Psychology. **(F)(3)**
Major emphasis is on problems involved in human relations. Designed to help the individual to understand and adjust to group thought and action. Attention is given to recent psychological and sociological research in human relations.

Psychology 352. Abnormal Psychology. **(S)(3)**
Mental disorder, changing conceptions of normality, the more common forms of mental disorders, their psychological interpretation, principles of effective mental hygiene, and contemporary approaches to psychotherapy.

Psychology 361. Psychology of Learning. **(F)(3**
Basic concepts and principles of learning with emphasis upon human and animal laboratory studies.

Psychology 402. Counseling Theories and Techniques. **(F)(3**
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing. Permission of the instructor required.

Psychology 460. Theories of Personality. **(F)(3**
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological and stimulus-response theories included.

Psychology 461. History and Systems of Psychology. **(on demand)(3**
Origins of psychological thought within science and philosophy, tracing the development of systems and theories within German, British, and American psychology.

Psychology 470. Theories of Learning. **(S)(3**
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories.

Psychology 495. Independent Study. **(F,S,Sum)(1-3**

SOCIOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Sociology 131, 460. Psychology 330 is strongly recommended and will be credited toward the thirty semester hour requirement.

Requirements for a Minor: Twenty-one semester hours, including Behavioral Sciences 245, 341, Sociology 131. Psychology 330 is strongly recommended and will be credited toward the twenty-one semester hour requirement.

Appalachian Semester courses having a sociology prefix may count toward both the major and minor.

Sociology 131. Introduction to Sociology. **(F,S)(3)**
The social interaction of persons and groups; man's cultural heritage and social nature; analysis and principles of group life; forms of collective behavior; the process of socialization; social structure, interaction and reorganization, including race relations and social class; a variety of social institutions; the family, education, religion; the economy and politics; social change.

Sociology 241. Sociology of Appalachia. **(S)(3)**
Uses the basic principles and concepts of sociology to study life in the Appalachian region. The areas of study includes socio-economic class, culture, folklore, social institutions, the family, religion, schooling, poverty, and development.

Sociology 251. Current Socio-Economic Problems. **(F)(3)**
Scientific understanding of social problems; problem areas in contemporary American society; types of personal disorders and role impairment; the influences of social change on the structure of society. Attention is also given to the question of why certain forms of deviance become defined as social problems.

Sociology 255. Selected Topics in Political Sociology. **(on demand)(3)**
A series of seminars and small group discussions organized around a set of case readings in the area.

Sociology 271. Marriage and the Family. **(S)(3)**
Background experiences in the lives of young people leading up to courtship and marriage; the establishment and functioning of the home, with related biological and social factors. Emphasis upon changing attitudes toward family relationships, some of the problems involved and suggested solutions.

Sociology 311. Human Ecology. **(S)(3)**
Population distribution, growth, composition, and its relevance to current economic, social, and political problems. (Even years only.)

Sociology 353. Minority Groups. **(F)(3)**
A social scientific study of the origin and organization of minorities and their effect on society, with particular emphasis on minorities in the United States.

ociology 371. Social Institutions. **(F)(3)**
An examination of the structure and function of social institutions, with primary orientation within the American milieu. Particular emphasis on socialization, stratification, social change, and relations among institutions. (Odd years only.)

ociology 387. Field Practicum in Sociology. **(S)(3)**
The field practicum in sociology is designed to give social science majors practical experience in a professional field related to sociology. Field placements will include such diverse experiences as working in the county court clerk's office, pre-trial services, social services and other programs. *Prerequisites:* Behavioral Science 245, and either Anthropology 221, Psychology 111 or Sociology 131, and permission of the instructor.

ociology 421. Rural and Urban Sociology. **(F)(3)**
Comparative and interrelated study of urban and rural life considering physical, institutional, social and economic factors of modern life in cities and in the countryside. (Even years only.)

ociology 433. Social Change. **(F)(3)**
This course introduces students to the problems of development and change. Examples will be drawn from Third World models of development, nationalism, imperialism, environmentalism, and human rights. The course is interdisciplinary, with emphasis on historical, economic, environmental and sociological aspects. (Odd years only.)

ociology 460. Sociological Theory. **(F)(3)**
The major theories which have proved useful in investigating the nature of society are examined as cultural products, ideologies, and scientific models. Special attention is given to major figures such as Comte, Durkheim, Weber, Merton, C. Wright Mills, White, and Sorokin in the emergence and convergence of their theoretical development. Lecture and discussion in a seminar setting.

ociology 464. Sociology of Deviance and Criminology. **(S)(3)**
This course will develop an understanding of the social definitions and implications of deviance. Various types of deviant behavior and relevant theories of society will be addressed. (Even years only.)

ociology 495. Independent Study. **(on demand)(1-3)**

PRE-LAW

Most law school admissions committees require a student to have a four-year college program eading to the Bachelor of Arts or Bachelor of Science degree plus an acceptable score on the Law chool Admissions Test. Majors may be in any area although most students tend to take business r social science majors of some type. Regardless of the major, elective hours in accounting, usiness, history, political science, philosophy, and English prove helpful.

HISTORY

Requirements for a Major: Thirty semester hours of history including History 111, 112 and 300. t least 12 hours must be U.S. History and 12 hours must be non-U.S. History. Military Science 202 ay be counted toward the U.S. history requirement.

Requirements for a Minor: Twenty-one semester hours in history; including History 111 and 12. At least 9 hours must be in U.S. History and 9 in non-U.S. History. Military Science 202 may be ounted toward the U.S. history requirement.

listory 111. World History to 1500. **(F,S)(3)**
Survey of the institutions, culture, and thought of major world civilizations to 1500. The course will focus primarily on Western civilization, with some attention given to the development of China, India, the Americas, and Africa.

listory 112. World History since 1500. **(S)(3)**
Survey of world history during the period of European expansion and colonial domination.

listory 201. United States History to 1865. **(F)(3)**
A survey of American history through the Civil War, tracing the development of the American nation. Stress is placed on the nature of colonial society; the American Revolution; the creation of a national government; the influence of Jackson, and the Civil War.

History 202. United States History since 1865. **(S)(3**
A survey of American history to present times tracing the rise of America as a world powe
Emphasis is on the changes of industrialization; the loss of civil rights; protest and reform; th
Depression; and American influence in the world.

History 233. History of Appalachia. **(Sum,F)(3**
A survey of the region from settlement to the present time. The course focuses especially on th
impact of the frontier experience, the Civil War and industrialization. "How is Appalachia botl
similar to and different from the rest of America?" is a major question addressed by the course

History 241. American Economic History. **(S)(3**
Examination of the economic forces shaping the development of the American nation. Topica
consideration of mercantilism; the rise of capitalism; slavery; the shocks of industrialization; th
New Deal; and criticism of American economic power and capitalism. (Even years only.)

History 300. Historical Research and Methods. **(F)(3**
Gathering and criticism of data; bibliographies and aids; problems in historiography, composi
tion analysis, and the final monograph.

History 311. United States Colonial and Revolutionary Eras (1600-1815). **(F)(3**
An examination of the conflicting historical interpretations of these eras. Topics emphasized
will be Puritanism; Colonial society; reasons for the Revolution; the meaning of the constitution
and the nation's early problems. (Odd years only.)

History 312. Jacksonian Era & the Civil War (1815-1865). **(S)(3**
Emphasis on the conflicting historical interpretations of Jacksonian America and the Civil War
Topics include the Second Political Party System; slavery; expansion; and the causes of the
Civil War. (Odd years only.)

History 313. Industrial America (1865-1919). **(F)(3**
A consideration of the conflicting historical interpretations of the period. Topics emphasized
include the loss of Civil Rights; the nature of the Gilded Age; Populist and Progressive Reforms
and World War I. (Even years only.)

History 323. Latin America. **(S)(3)**
Survey of Latin American history from the discoveries by Columbus to the present. (Odd years
only.)

History 342. History of Britain. **(F)(3)**
British history from the end of the War of the Roses until 1918. Emphasis on the religious,
political, and economic development of Britain, the rise and decline of the British Empire, and
British intellectual trends. (Odd years only.)

History 345. American Constitutional History: Civil and Political Rights. **(F)(3)**
An examination of the influence of the Supreme Court with primary stress given to political and
civil rights. Major consideration is the modern and Warren Supreme Court. (Even years only.)

History 351. Europe to 1713. **(F)(3)**
History of Europe from 1350 to 1713. Course will cover the Renaissance, the Reformation, the
counter-Reformation, the decline of feudalism, the rise of secularism, and the origin and
development of the national state. Focus will be on changes in thought and belief. (Even years
only.)

History 352. Europe since 1713. **(S)(3)**
History of Europe from 1713 to the present. Course will cover the enlightenment, mercantilism,
economic and imperial colonialism, domestic revolutions, the Napoleonic era, the industrial
revolution, the Concert of Europe, major intellectual trends, and the world wars. Focus will be
on political change. (Even years only.)

History 421. The Middle Period (1821-1850). **(F)(3)**
A detailed examination of Jackson, politics, and the culture of the period. Stress is placed on
reform and the predominance of change in American life, and conflicting interpretations of the
period. (Even years only.)

History 446. History of Russia. **(F)(3)**
Russian history since 1689. Survey of the political and social changes in Russia from the time of
Peter the Great to the present, including an extensive review of the origins and development of
the modern Soviet state. (Even years only.)

History 470. Twentieth Century America. **(S)(3)**
Selected topics on the nation's history since 1900, including the New Deal, Viet Nam, and Watergate. (Odd years only.)

History 495. Independent Study. **(F,S,Sum.)(3)**

POLITICAL SCIENCE

Political Science 101. American National Government. **(F)(3)**
A survey of the principal characteristics of the American National Government; examination of constitutional principles, federalism, political participation, institutions of government, and the politics of public policy.

Political Science 231. International Politics. **(F)(3)**
Basic historical, economic, and cultural factors in the international political system. The rise and development of Western nation-state systems; the foundations of national power; sovereignty, nationalism and imperialism; the development of international organizations and cooperation.

Political Science 305. American Political Parties and Politics. **(S)(3)**
The organization, functions, and practices of political parties in the United States, their methods of influencing public opinion, their role in nominations and elections, and their impact on popular government. (Even years only.)

Political Science 308. The American Presidency. **(S)(3)**
Analysis of the institution of the presidency, its functions, formal and informal relationships, and its limitations within the American political system. (Odd years only.)

Political Science 461. Administrative Management. **(on demand)(3)**
Methods of applying administrative principles to the operation of government agencies. Relevance of administrative theory to management procedures in government; the relation of policy formation and implementation to the administrative policy system environment.

GEOGRAPHY

Geography 101. Introduction to Geography. **(S)(3)**
Emphasis on the concepts of place, region, spatial interaction, landscape interpretation and landscape evolution. Deals with the graphic media of geography — maps, graphs, scale models. Case studies illustrate geographic principles to familiarize students with various parts of the world. For future teachers as well as students of the natural and social sciences.

Geography 241. Geography of Appalachia. **(F)(3)**
A systematic analysis of the physical, demographic, economic and cultural characteristics of the Appalachian landscape, with comparative significance for other regions. Includes field study.

APPALACHIAN STUDIES

An interdisciplinary minor in Appalachian Studies is available to interested students. Courses involving the study of Appalachia may be found throughout this catalog.

Requirements for a Minor: Twenty-one semester hours chosen from the following: Behavioral Sciences 341 or History 300; Environmental Studies 313 and 469; Geography 241; History 233; and Sociology 241. Participation in the Appalachian Semester may also be counted toward a minor in Appalachian Studies.

APPALACHIAN SEMESTER

L. James Cox, *Coordinator*

The Appalachian Semester offers mature students a unique educational opportunity to devot their full time to studying the Appalachian region — its strengths, its problems and its challenge: The program's objectives are to promote in-depth awareness and understanding of life in Appala chia from an interdisciplinary area. This comprehensive academic program, which includes bot classroom and field experience, provides 15 semester hours of credit in a variety of disciplines an offers the student the opportunity to become actively involved in a unique part of America society.

The following courses comprise the Appalachian Semester. Students must complete an appl cation with the Coordinator prior to enrollment in this program.

Sociology 287. Appalachian Field Practicum/Research. **(F)(6**
Each Appalachian Semester student, in consultation with the program coordinator, will develo a specialized field experience. This course may be either experiential learning in a service o institutional setting, or directed study on a regional topic. Academic credit is available i English, history, sociology, anthropology, psychology, or social work, and in other discipline on a negotiated basis as necessary and feasible.

Sociology 345. Appalachian Semester Orientation Seminar. **(F)(3**
A multidisciplinary introduction, within the context of regional unity and diversity, to mountai society, folk culture, literature, music, religion, ethnic groups, geography and history.

Sociology 349. Political Economy of Appalachia. **(F)(3**
An analysis of the political economy of the Appalachian Region, e.g., settlement patterns subsistence and commercial agriculture; timber, coal, textiles, and tourism; land ownership an land use; the corporate sector; taxation; government programs and planning; and issues o external and internal power relationships.

Sociology 422. Social Institutions in Appalachia. **(F)(3**
A theoretical and observational analysis of the cultural and social characteristics of the Appa lachian Region. Special emphasis will be given to the contemporary Appalachian culture and t the interaction of mountain people with the broader forces of social change at work in moder America.

Sociology 487. Appalachian Field Practicum/Research. **(F)(6**
Each Appalachian Semester student, in consultation with the program coordinator, will develop a specialized field experience. This course may be either experiential learning in a service o institutional setting, or directed study on a regional topic. Academic credit is available i English, history, sociology, anthropology, psychology, or social work, and in other disciplines on a negotiated basis as necessary and feasible.

AREA IN SOCIAL STUDIES

An area of concentration in social studies shall consist of a minimum of 48 semester hours including: a minimum of 12 semester hours in history with at least 6 semester hours in American history; 6 semester hours in political science; 6 semester hours in economics; 6 semester hours in sociology; 3 semester hours in geography; and 3 semester hours in anthropology; with an 18 semester hour concentration in one of the subjects. Only those social studies subjects in which a minimum of 12 semester hours credit has been completed shall be designated on the certificate.

History 111 and History 323, 342, 351, 352, or 446
History 201 and History 311, 312, 313, 345, 421 or 470
Political Science 101 and Political Science 305, 308 or 461
Economics 153 or 154 and Economics 363 or Business Education 353
Sociology 131 and Sociology 311, 353, 371, 421, 433, 460, or 464
Psychology 111 and Psychology 330, 352, 361, 460, 461, or 470
Geography 101 or 241
Anthropolgy 221 or 251
Behavioral Science 341 (History 300 may be substituted for Behavioral Science 341 if an area concentration in History is chosen.)

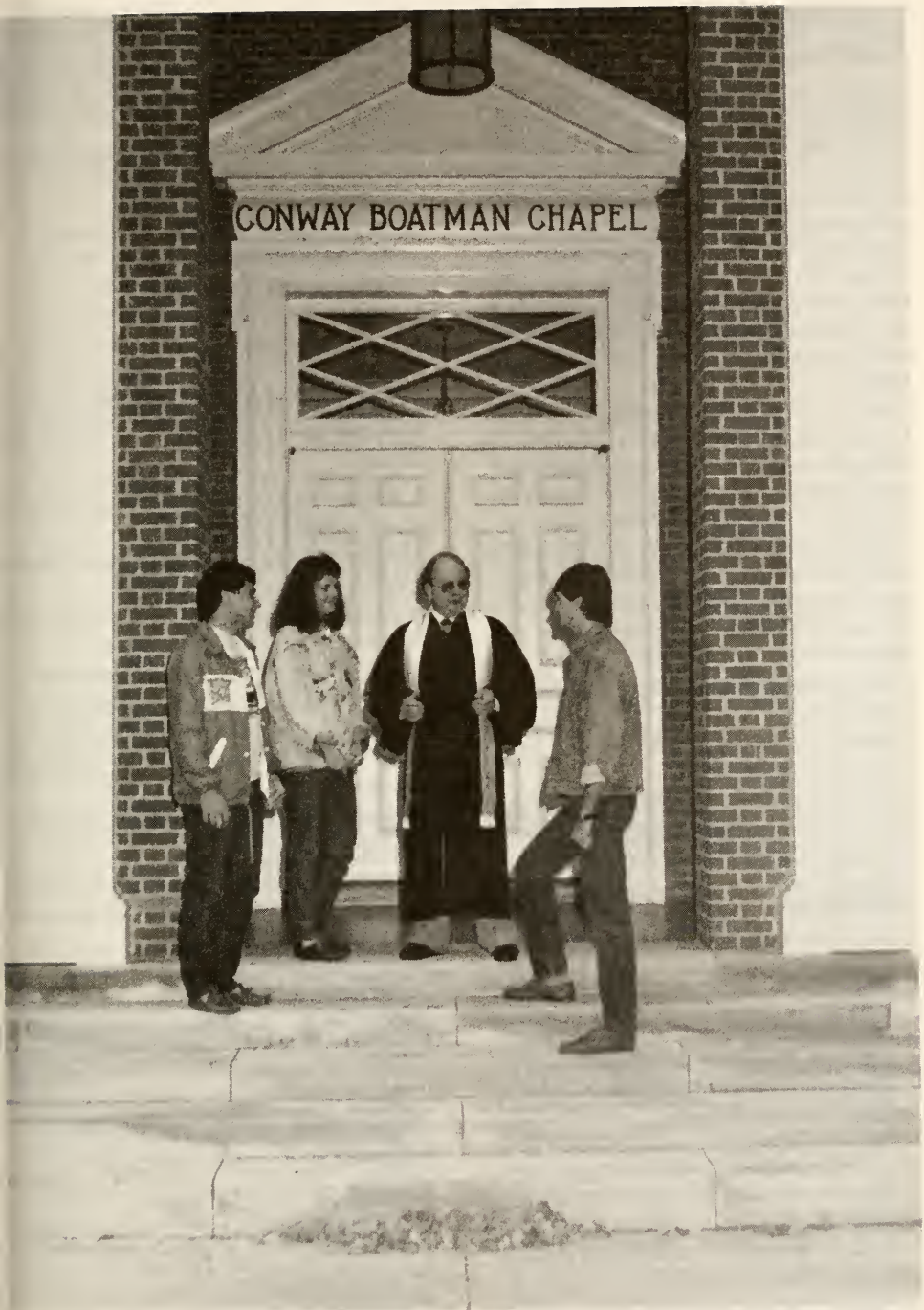
Area Concentrations

History
18 semester hours including History 111, 112, 201, 202, 3 semester hours upper division American history and 3 semester hours upper division non-American history

Sociology
18 semester hours including Behavioral Science 245, Sociology 131 and 12 semester hours in Sociology

Twelve Hour Block

History 111 World History to 1500
History 112 World History since 1500
History 201 United States History to 1865
History 202 United States History since 1865
Behavioral Science 245 Basic Statistics: Theory and Application
Sociology 131 Introduction to Sociology
Additional 6 semester hours in Sociology



CAMPUS INFORMATION

Location, Campus and Buildings

Union College is located in Barbourville, a residential town of 3,500, on U.S. highway 25E midway between Lexington, Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. Cumberland Gap National Historical Park is thirty miles away. The Doctor Thomas Walker State Shrine is four miles from the campus and in adjoining counties are Cumberland Falls State Park, Levi Jackson State Park, and Pine Mountain State Park.

On one of the most picturesque campuses of the South, Union College is proud of its Georgian buildings. Shaded by overhanging elms, the red brick buildings give the campus a majestic charm of dignity and beauty.

Speed Hall, (Administration Building), 1897-1905. A gift from the estate of Mrs. Fanny Speed of Louisville, KY. Her bequest also partially financed Centennial Hall and Stevenson Hall.

Centennial Hall, (formerly the Classroom Building), 1907.

Stevenson Hall, Men's Dormitory, 1907; wings added 1957.

Dramatic Arts Center, (formerly Soldiers' and Sailors' Memorial Gymnasium), 1919, remodeled 1965.

Baldwin Place, the home of the President, 1925. The gift of Mr. and Mrs. F.E. Baldwin, Elmira, New York.

Maintenance Building, 1938, originally equipped by a gift from the estate of Robert Norton, New Albany, Indiana.

Abigail E. Weeks Memorial Library, 1941, originally furnished by a gift from Mrs. Abbie E. Stewart. Expanded, 1987.

Pfeiffer Hall, Women's Dormitory, 1942; wing added 1960. The original wing was a gift from the estate of Mr. and Mrs. Henry Pfeiffer, of New York City.

Conway Boatman Chapel and Fine Arts Building, 1949.

College Courts, residences for married students, 1954; expanded in 1964.

College Park Drive, 1960, faculty residential area.

Langford Apartments, 1962. Gifts from th estates of Miss Mary Kyle Dugan and Mrs Mary Gilbert Langford in memory of Mr. an Mrs. George Langford. Housing for facult and staff.

Physical Education Building, 1964, incluc ing the Swimming Pool, 1957.

Student Center, 1964.

Mahlon Miller Science Center, 1973.

Religious Life Center, 1975.

Publications

Union College Bulletin — An official quarterly bulletin, one issue of which is the catalog number. The bulletin is sent free or request.

Parent's Bulletin — A publication to inform parents of activities on campus.

Union Express — A newspaper published by the student body.

Union College Alumnus — A bulletin published by the Alumni office.

Stespean — The yearbook, published annually by the students of the college.

Union and You — A publication that combines the official calendar and institutiona policies.

Pfeiffer Perspective — A handbook for residents of Pfeiffer Hall.

Stevenson Scenario — A handbook fo residents of Stevenson Hall.

Student Organizations

Students have the opportunity of participating in and developing leadership through a number of campus organizations. Some o these are departmental, some are limited to honor students in their fields, many are open to all interested students. Each has a faculty sponsor and some include faculty in their membership. The following are official clubs and organizations as approved by the faculty of Union College. Campus organizations must file each year for sanction to operate and new organizations must apply to be recognized and sanctioned. The Dean of Students is the administrative contact for organizations and for their requests for funds from student activities monies.

Alpha Psi Omega — A national honorary theatre fraternity. Union's Zeta Chi chapter serves to encourage participation in the college's theatrical activities and to develop larger and better informed theatre audiences.

Appalachian Wilderness Club — A group to explore the outdoors through hiking, camping, and caving.

Fellowship of Christian Athletes — An organization designed to promote athletic involvement and spiritual growth.

Gamma Beti Phi — A national honor society promoting scholarship, leadership, and good citizenship at Union College.

Iota Sigma Nu — An honor society to provide recognition for honor students by uniting them in an organization which encourages high ideals, promotes diligence in study, and rewards excellence in scholarship.

Modern Culture Study Group — A group whose purpose is to study modern culture with an emphasis on the dramatic arts, through group discussions, films, readings, and lectures.

Oxford Club — An organization to provide a fellowship of service and study for Christian students of Union College, and to provide opportunities for those students to put their faith into action.

The Paw Pack — An organization to encourage school spirit; increase campus participation in Union athletic events; and create a spirit of unity among students, faculty, administration and staff.

Phi Beta Lambda — A national business organization promoting scholastic achievement, service to the community, development of leadership potential, social interaction, and increased awareness of the business world.

Campus Activities Board — A student organization to plan and manage the primary campus activities calendar and its scheduled events. The Campus Activities Coordinator serves as the main advisor. The board is funded through the Student Activities Fee.

Student National Educational Association — A national pre-professional organization for men and women planning to pursue teaching as a career.

Union College Science Society — An organization to stimulate interest in the natural sciences.

Union College Service Organization — An organization sponsored by Campus Ministry and supported by The Fellheimer Trust, which encourages and coordinates volunteer service on the campus and in the surrounding communities by students, faculty and staff.

BLTN (Better Later Than Never) — An organization seeking to provide information, social outlets, counseling, and emotional support for non-traditional students (those who have experienced a gap between their secondary education and college or an interruption in their college careers).

BBUCL (Book Busters of Union College Library) — An organization seeking to encourage greater use of the Union College Library.

Association for Cultural Enhancement — An organization seeking to promote cooperation, fellowship and solidarity among student groups with a special concern for the needs of minority students on the Union campus.

Intramural Council — An organization serving to plan and manage an active broad-based and competent program of intramural leisure sports activities for the women and men of the campus. The Intramural Director serves as coordinator and advisor to the I. M. Council.

Commuter Council — An organization seeking to explore the needs, interests, and problems facing non-residential students. The Commuter Council seeks to plan and manage activities and services for non-residential students. The Dean of Students serves as advisor to this council.

Athletics

Union College is a member of the Kentucky Intercollegiate Athletic Conference (KIAC), the Mid-States Football Conference (MSFC), and the National Association of Intercollegiate Athletics (NAIA). The college promotes athletics for physical development and as a vital part of the program of extra-curricular activities. The program emphasizes the protection of the best interests of the student athlete. Union teams are noted for "clean" sport and competitive spirit. Sport for fun and character building is fundamental. In intercollegiate competition for men, the College is represented by varsity teams in football, basketball, swimming, tennis, track, and baseball.

Women may participate on intercollegiate teams in swimming and track, and have earned places on varsity teams in these sports in recent years. Separate women's teams are active in basketball, tennis and softball and compete against women's teams from other colleges and universities in the area.

Union College sponsors intramural activities in touch football, basketball, free-throwing, badminton, softball, tennis and volleyball to have a "sports for all" program. The intramural organization is, in general, made-up of men's and women's independent teams. The program includes both team and individual sports. No college credit is given for intramurals, but everyone is urged to take part.

Student Conduct

Each student is expected to conduct himself at all times according to the rules of good society. This obligation includes compliance with Federal, State and local laws and adherence to college regulations. As members of a free society, students are always free to peacefully and lawfully petition for amendment or modification of the various laws as well as the college regulations. However, the rights of the student body as a whole and the College as an institution of higher education supersede the rights of any individual student or any group of students. Accordingly, not in an attempt to stifle dissent, but rather to perpetuate an environment where the student may peacefully pursue his studies, actions which are disruptive to the normal functions and operations of the College will not be tolerated. Students who are disorderly in conduct, or unmindful of the rights of others, may be required to withdraw from the College.

No student shall possess or use alcoholic beverages when on college property or when away from the campus representing the College in any way, i.e., as a participant or spectator at a College athletic event or other college function. Any student violating this regulation may be required to withdraw from the College.

Union College students are obliged to show discretion, good judgment, and strong respect for Christian principle in all interpersonal relationships.

The sale, possession, or use of drugs or substances in violation of the Federal, State, or local laws is prohibited. Any student who illegally sells, possesses, or uses such drugs will be subject to criminal prosecution by the appropriate law enforcement agencies and also may be suspended or expelled. It is the announced policy of Union College to cooperate fully with the various law enforcement officials in the enforcement of the drug laws as with all other laws. A student's lawful use and possession of certain drugs prescribed by a qualified medical practitioner such as a physician, dentist, or optometrist is, of course, permitted.

Firearms and explosives of any kind are forbidden in the residence halls or on the campus. Students may be expelled for failure to abide by this rule.

Gambling in any form is strictly forbidden.

The complete Student Conduct Code is printed in UNION AND YOU, the Student Handbook. The Dean of Students serves as the chief discipline officer for student conduct for the College.

Union College expects good housekeeping from all on-campus resident students. Residents who fail to keep their rooms in satisfactory conditions will have their housing contract revoked. The College reserves the right to enter and inspect the rooms of students at any time.

The academic conduct code is printed in UNION AND YOU, the Student Handbook. The Vice President for Academic Affairs is the chief academic discipline officer for the College. The Student Code defining procedures for dealing with academic dishonesty can be obtained in the office of the Vice President for Academic Affairs.

Social Life

Students are encouraged to accept every legitimate opportunity to engage in social functions. The faculty emphasizes the value of well-directed social activities. Student organizations, the faculty, and local churches make desirable contributions to the promotion of social life. The Dean of Students, through the Campus Activities Coordinator, is responsible for the initiation and direction of a com-

prehensive program of student social and recreational activities. All social functions are subject to the rules and regulations of the college.

Automobiles

Automobiles parked on campus must be registered in the Business Office. All must display a legible parking permit sticker. Stickers should be displayed in the rear window of the car on the driver's side. Cars should be parked in the assigned lots as designated by the Business Office. Violation of parking regulations may result in vehicles being ticketed or towed away at owner's expense. Parking for the handicapped is provided.

Health Service

Union College students may receive health service and advice from the County Health Office in Barbourville. Since the College does not have facilities for taking care of protracted illness, arrangements for hospitalization must be made by the student or his parents. When a physician is needed, the student may request the residence hall staff to call one, whose fee is paid by the student. In case of emergency, the College reserves the right to employ a physician or to have a student hospitalized without consent of the parents. All full-time students are encouraged to secure coverage of an accident, sickness, and hospitalization plan if adequate insurance is not available through a family plan at home. All claims under student insurance plans are filed by the student and the attending physician and not by Union College.

The college does require that a student health service record be completed by a physician and placed on file with the College before beginning studies at Union.

Campus Housing

Stevenson Hall for men and Pfeiffer Hall for women are primarily double-occupancy facilities. A limited number of single/private rooms are available; preference for these rooms is granted by request to those students having earned the greatest number of credit hours. Twenty apartments are available for married students. All residents of Stevenson Hall, Pfeiffer Hall, and College Courts are required to sign housing contracts.

Students are expected to obey the terms of their housing contract. A copy of this contract can be obtained in the office of the Dean of Students.

The residence halls are closed during vacation periods as specified in the academic calendar. Students will not be allowed to remain in the residence halls during vacation. Students will be required to turn in their keys during these stated vacation periods. Anyone failing to do so will be charged a lost key fee.

No student will be issued a room key, hallway, or outside door key unless he or she has previously signed a housing contract. Keys must be returned by the last day of the term of this agreement or the student's use of the accommodations, whichever occurs first. Any student failing to return a room key and/or apartment key will be charged a ten dollar ($10.00) fee. A twenty-five dollar ($25.00) fee will be charged for loss of hallway or outside door key to cover the cost of changing the lock for the security of persons subsequently permitted the use of the accommodations.

All students twenty-one years or older, juniors or seniors, according to the Registrar's Office records, veterans, and married students are eligible to live off campus. Juniors and seniors under age twenty-one must submit written parental permission.

Religious Life

Union College takes seriously its identity as a church-related institution and is concerned that its students be made aware of the value of vital faith as well as academic excellence. We seek to be faithful to John Wesley's affirmation that a whole person is one who unites knowledge with vital piety.

Chapel worship services are held on campus weekly, are ecumenical in nature, and utilize the gifts and graces of the campus minister, other clergy, faculty, and students. Students are given many opportunities to participate in vesper services, prayer groups, Bible studies, and other informal discussion groups and are given ample opportunity and encouragement to grow in their understanding of the Christian faith. The Religious Life Center, in the heart of the campus, provides a

setting for informal worship, study, discussion, and fellowship.

The campus minister and other community clergy are available for personal Christian counseling.

The Wilson-Gross Lectures and the Staley Distinguished Christian Scholar Lectures seek to bring outstanding speakers to the campus to discuss and provide information about the Christian faith. The Religious Life Committee, composed of students, faculty, and local clergy, works with the campus minister as an advisory group to ensure that religious life programs are appropriate to the needs of the students and the campus community.

Students are encouraged to worship regularly in the church of their choice and to participate in the various denominational and faith-oriented groups on campus and in the community.

ACADEMIC CALENDAR 1988-89

Summer, 1988 — First Session

May 29, Sunday	Residence halls open for new students at 1:00 p.m. First meal at 4:30 p.m.
May 30, Monday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Classes begin on regular schedule.
June 1, Wednesday	Last day for schedule changes. Last day to register for first summer session.
June 15, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 25, Saturday	Orientation and Advance Registration for fall semester for new students.
July 1, Friday	Final Examinations for first summer session. Advance Registration for second summer session.

Summer, 1988 — Second Session

July 4, Monday	Holiday.
July 5, Tuesday	Advising and Registration. Late fee after this date. Classes begin on regular schedule.
July 7, Thursday	Last day for schedule changes. Last day to register for second summer session.
July 11, Monday	Orientation and Advance Registration for fall semester for new students.
July 20, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
August 1, Monday	Orientation and Advance Registration for fall semester for new students.
August 5, Friday	Final Examinations for second summer session.
August 6, Saturday	Last meal at noon. Residence halls close at 4:00 p.m.

Fall Semester, 1988

August 31, Wednesday	Last day to finalize advance registration for fall semester.
September 1, Thursday	Meeting for new faculty members; 10:00 a.m.
September 2, Friday	Faculty meeting/workshop; 9:00 a.m.-4:00 p.m. Division Meetings.
September 5, Monday	Residence halls open at 8:00 a.m. First meal at noon.
September 6, Tuesday	Advising for upperclassmen and freshmen having completed Placement Tests and Summer Orientation; 9:00 a.m. Students who have not completed Placement Tests and/or Summer Orientation follow schedule below: Placement Tests — 12:30 p.m. Fall Orientation — 3:00 p.m. Graduate Registration — 2:00-6:30 p.m.
September 7, Wednesday	Registration for Fall Semester. Late fee after this date.
September 8, Thursday	Classes begin. Required Assembly for Freshmen and new students; 9:30 a.m. — Conway Boatman Chapel
September 12-16	Constitutes the first week for refund purposes.
September 15, Thursday	All-School Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel Last day for schedule changes. Last day to register for fall semester.

October 26-27	Mid-semester Examinations (classes meet on regular schedule).
October 28-30	Mid-semester weekend; no classes. Residence halls remain open; food service available.
October 31, Monday	Classes resume.
October 31-November 4	Counseling sessions with advisors. Classes meet on regular schedule.
November 16, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
November 17, Wednesday	Advising and Advance Registration for spring semester.
November 22, Tuesday	Last meal served at 4:30 p.m.
November 23, Wednesday	Residence halls close at 10:00 a.m.
November 23-27	Thanksgiving vacation; no classes.
November 27, Sunday	Residence halls re-open at 1:00 p.m. First meal at 4:30 p.m.
November 28, Monday	Classes resume.
December 9, Friday	Last day to finalize advance registration for spring semester.
December 10, Saturday	Final Examinations for Saturday classes.
December 12, 13, & 14	Final Examinations.
December 15, Thursday	Grading Period.
December 16, Friday	Final grades for fall semester are due. Last meal at noon. Residence halls close at 4:00 p.m.

Spring Semester, 1989

January 2, Monday	Residence halls open at 1:00 p.m. First meal at 4:30 p.m.
January 3, Tuesday	Academic Advising. Counseling and Orientation for new students.
January 4, Wednesday	Registration for spring semester. Late fee after this date.
January 5, Thursday	Classes begin.
January 9-13	Constitutes the first week for refund purposes.
January 11, Wednesday	Last day for schedule changes. Last day to register for spring semester. Last day to apply for graduation.
January 19, Thursday	All-school Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel.
March 1-2	Mid-semester Examinations (classes meet on regular schedule).
March 3, Friday	Spring vacation begins; no classes. Last meal at noon. Residence halls close at 4:00 p.m.
March 12, Sunday	Residence halls re-open at 1:00 p.m. First meal at 4:30 p.m.
March 13, Monday	Classes resume.
March 15-16	Counseling sessions with advisors. Classes meet on regular schedule.
March 24, Friday	Easter vacation; no classes. Residence halls remain open; food service available.
March 28, Tuesday	Classes resume.
April 5, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
April 6, Thursday	Honors Convocation; 10:30 a.m.
April 13, Thursday	Advising and Advance Registration for May Interim, Summer Sessions and Fall Semester.
April 29, Saturday	Placement tests for new summer session students.
May 1, Monday	Last day to finalize advance registration for May Interim.
May 1, 2 & 3	Final Examinations.
May 4, Thursday	Grading Period.
May 5, Friday	Final grades for spring semester are due.
May 6, Saturday	Commencement; 10:30 a.m.

May Interim, 1989

May 8, Monday	Registration for May Interim. Classes begin on regular schedule.
May 9, Tuesday	Last day to register for May Interim. Last day for schedule changes.
May 12, Friday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
May 22, Monday	Last day to finalize advance registration for first summer session.
May 26, Friday	Final Examinations.

Summer, 1989 — First Session

May 28, Sunday	Residence halls open for new students at 1:00 p.m. First meal at 4:30 p.m.
May 29, Monday	Memorial Day Holiday.
May 30, Tuesday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Classes begin on regular schedule.
June 1, Thursday	Last day for schedule changes. Last day to register for first summer session.
June 14, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 27, Monday	Orientation and Advance Registration for fall semester for new students.
July 3, Monday	Final Examinations. Advance Registration for second summer session.

Summer, 1989 — Second Session

July 4, Tuesday	Holiday.
July 5, Wednesday	Advising and Registration. Late fee after this date. Classes begin on regular schedule.
July 7, Friday	Last day for schedule changes. Last day to register for second summer session.
July 19, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
July 31, Monday	Orientation and Advance Registration for fall semester for new students.
August 4, Friday	Final Examinations.
August 5, Saturday	Last meal at noon. Residence halls close at 4:00 p.m.

ADMINISTRATION AND STAFF

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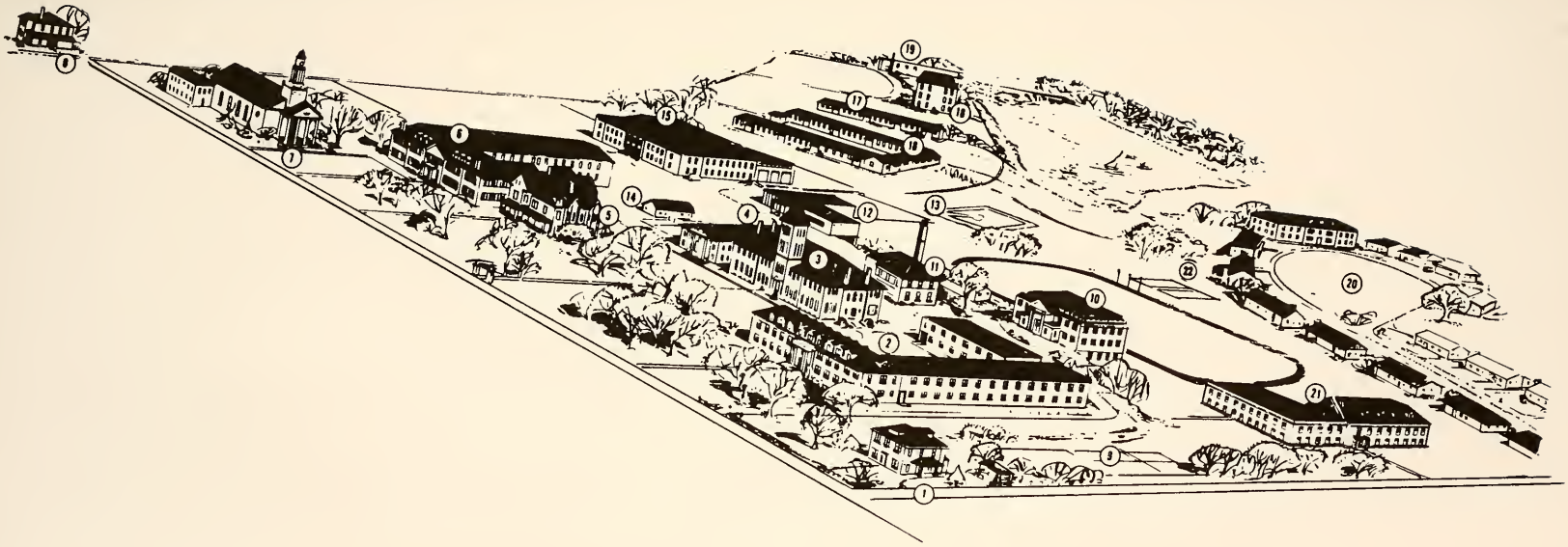

1. Baldwin Place, President's Residence
2. Stevenson Hall, Men's Residence
3. Centennial Hall
4. Library
5. Speed Hall, Administration Building
6. Pfeiffer Hall, Women's Residence
7. Conway Boatman Chapel—Fine Arts Building
8. Tye House
9. Tennis Courts
10. Memorial Gym
11. Data Processing
12. Student Center
13. Colonel Sanders Field
14. Religious Life Center
15. Physical Education Building and Swimming Pool
16. College Courts, Married Students' Apartments
17. College Courts Addition
18. Lakeside Hall
19. Lakeside Center
20. College Park, Faculty Housing
21. Mahlon Miller Science Center
22. Tennis Courts

UNION
COLLEGE
310 College St.
Barbourville, KY 40906

UNION

COLLEGE

Graduate Catalog 1987 - 89

Barbourville, Kentucky

"The First College in the Kentucky Mountains"

certified to be a correct copy of the Union College catalog (Graduate Program) 1987-1989.
E. Edwin LeMaster
Registrar 1/18

UNION COLLEGE
1987-89 Graduate Catalog

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DIRECTORY FOR CORRESPONDENCE

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Admission to the Graduate Studies Program	Dean of Graduate Academic Affairs
Alumni Affairs	Director of Alumni Affairs
Charges and Payment of Bills	Business Manager and Treasurer
Personal Welfare, Health of Students, Housing	Dean of Students
Grants, Scholarships, Workships and Loans	Director of Student Financial Aid
Transcripts—Academic Records—Veterans Affairs	Registrar

TELEPHONE COMMUNICATION

A campus-wide network of telephones enables the caller to reach any administrative or staff office by dialing the central switchboard.

Central Switchboard	(606) 546-4151
Pfeiffer Hall (Women's Residence)	(606) 546-3421
Stevenson Hall (Men's Residence)	(606) 546-3659

Union College is accredited by the Southern Association of Colleges and Schools, the Kentucky State Department of Education, and approved by the University Senate of the Methodist Church.

It is the policy of Union College not to discriminate on the basis of sex, race, color, handicap, or national and ethnic origin in the admission of students or in its administration of educational programs, scholarships, loan programs, athletic participation, or other school administered programs. Inquiries should be directed to Edward N. Black, Affirmative Action Coordinator.

The college reserves the right to modify or change the curriculum, admission standards, course content, degree requirements, regulations, tuition or fees at any time without prior notice. The information in this catalog is not to be regarded as creating a binding contract between the student and the School.

DR. JACK C. PHILLIPS

Welcome to Union College

We welcome and invite you to examine he Graduate Studies Program of Union ollege. Founded in 1879 by Barbourville itizens and purchased in 1886 by the ethodist Church, Union has as its hief mission, service to the Appalachian rea of Southeastern Kentucky, Eastern ennessee, and Southwestern Virginia.

With an enrollment of over 1,000 in- luding both graduate and undergraduate tudents, Union College is committed o academic excellence. The College ffers the Bachelor of Arts, the Bachelor f Science, the Master of Arts in Edu- ation Degrees, and Rank I Program, long with Associate of Arts Degrees nd several one-and two-year programs.

Located on the historic Wilderness Road, Union is the first College in this tri-state area. There are now over 8,000 graduates with over 3,000 having the Master of Arts in Education Degree.

We are pleased that you are interested in our graduate program and as you peruse these pages, hopefully you will like what you see. Should you wish to enter our College, we believe your experience will be a profitable and happy one.

Sincerely,

Jack C. Phillips

Jack C. Phillips
President

History of Union College

Union College was founded in 1879 by a group of progressive citizens of Barbourville who formed a stock company and secured the main part of the present campus. In 1880 the first building was formally opened on the site of what is now known as Centennial Hall.

The College was purchased by the Kentucky Conference of the Methodist Episcopal Church in 1886, and Daniel Stevenson was elected President of the reorganized institution. A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hall, and Centennial Hall.

The college department was discontinued in 1908 and for eight years the institution was maintained as a Junior College, an academy, and an elementary school. It became a *bona fide* college again in the presidency of Ezra T. Franklin, who inaugurated a program of development during which the Memorial Gymnasium and a home for the President were built. In 1927 the College was accredited by the University of Kentucky as a grade A four-year college.

President John O. Gross emphasized the improvement of the curriculum and the building of a strong faculty. In 1931 Union College was accredited by the University Senate of the Methodist Episcopal Church, and, in 1932, full accreditation was realized when it was made a member of the Southern Association of Colleges and Schools. The Board of Regents of the University of the State of New York placed Union on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the college achieved substantial progress in both its educational and plant improvement. Seven new buildings were completed and others were enlarged. The curriculum was expanded and endowment funds were increased.

Mahlon A. Miller was elected to the presidency in 1959 and served in this capacity until 1982. In 1960 a Master of Arts in Education degree program was introduced and plant expansion continued with the development of College Park, a faculty residential area, followed by the construction of additional student housing, a physical education building and a student center. A science center was completed in 1973.

In response to the needs of graduate students, the college began to offer graduate classes in other communities in 1973. This program has since expanded to provide in-service teachers with extension courses in twelve or more communities throughout the region.

In 1975, the College initiated the specialist in Education degree (Ed. S.) and Kentucky Rank I certification with the administrator's certificate. After seven years, the Ed.S. program was phased out; however, the Rank I program has continued to grow.

In 1979 Union celebrated its centennial year. A centennial campaign provided funds to renovate the Classroom building which was then re-named Centennial Hall.

In January of 1983, Jack C. Phillips became the 10th president of Union College. Under Dr. Phillips' leadership a new $1.4-million library addition has been completed; intercollegiate football has been reinstated; and a new stadium and physical education annex/weight room have been added.

The college has always accepted a special mission to Appalachia, a commitment that is strengthened with unique academic programs based on regional characteristics, expanded student financial aid, student community service projects, and new career-oriented curricula. As the college moves into its second century, it is expanding and enriching its service to Appalachia while at the same time fulfilling the needs of the many students from other states and other countries who come to Union College for an education.

Purpose of Graduate Studies Program

The Union College graduate studies program is designed primarily for in-service teachers in the mid-Appalachian region of Kentucky, Tennessee, and Virginia, although students are attracted from states ranging from New York to Florida and a few foreign countries.

Major factors which draw these students include a flexible program which fits the work schedule of teachers, a dedicated and well trained faculty, a variety of areas of emphasis designed to improve the quality of education, and the individual attention available to each graduate student. A limited number of persons who do not have teaching or administrative certification enroll in the graduate studies program to broaden their background and their knowledge.

Rank II and Rank I programs which meet Kentucky certification standards for professional advancement are available as well as the traditional degree of Master of Arts in Education.

Union's graduates hold responsible positions in teaching and school administration throughout the Appalachian region.

The objectives of the Graduate Studies Program are:

(1) To prepare teachers and school leaders for greater service through extension of those fields of study which result in improved classroom instruction, informed administration and human understanding.
(2) To provide graduate study for those who seek an advanced degree beyond the baccalaureate program.
(3) To encourage the attainment of excellence in scholarship, the acquisition of special skills in the field of education, and to develop a sense of obligation to contribute to the intellectual, cultural and economic growth of the community.
(4) To prepare students to think critically, to express themselves creatively, and to make independent and rational judgments.

In 1979, long range goals were formulated and adopted by the Graduate Council with advice from the Graduate Advisory Council, graduate students, and graduate alumni of Union College. These goals, intended to complement the objectives of the Graduate Studies Program and not to replace them, follow:

(1) To extend course offerings in which classroom teachers, administrators, and other school personnel may enroll to enable them to overcome felt deficiencies.
(2) To analyze and evaluate course objectives and content systematically and annually to determine whether current needs of students are being met.
(3) To make a continuous effort to improve **admission** and **exit** criteria for students which would be commensurate with a quality education program.
(4) To improve and up-grade library holdings continuously at the rate of four percent per year.
(5) To provide continuously improved means for students to acquire library materials in off-campus classes.
(6) To promote seminars on campus for all faculty teaching graduate courses for the purpose of:
- discussing current issues and trends in education
- up-grading instructional delivery systems
- reviewing new materials and equipment
(7) To provide a continuous opportunity for faculty development whereby faculty can attend professional meetings, participate in workshops, and prepare and deliver papers for learned societies.
(8) To maintain a close working relationship with public school officials in the area in developing courses for the Fifth Year Program to meet the needs of in-service teachers and the school system.

Graduate Calendar 1987-89

Fall Semester, 1987

August 26, Wednesday	Advance registration for fall semester is cancelled unless fi nancial arrangements are completed by this date.
August 30, Sunday	Residence halls open at 8:00 a.m. First meal served at noon
August 31, Monday	Registration - 2:00-6:30 p.m.
September 1, Tuesday	Registration continued 9:00-4:30 p.m. (Late fee charged afte this date)
September 2, Wednesday	Classes begin. Last day to submit application for Independent Study
September 7, Monday	Labor Day, no classes
September 7 - 11	First week for refund purposes
September 10, Thursday	Last day to register for fall semester or change schedules (Mus be accomplished before the second class meeting)
October 10, Saturday	Written exercise (Qualifying applicants to graduate candidacy) required of 5th-Year and M.A. applicants during 1st 12 hours of graduate work - 9 a.m. Sc. 210
October 24, Saturday	NTE-Core (Required of M.A. and Fifth-Year Candidates)
November 14, Saturday	NTE-Specialty Area
November 18, Wednesday	Last day to withdraw from a course with a grade of "W"
November 24, Tuesday	Last meal served at 4:30 p.m.
November 25, Wednesday	Residence halls close at 10:00 a.m.
November 25 - 29	Thanksgiving vacation; no classes
November 29, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
November 30, Monday	Classes resume. Advance Registration begins for spring semester.
December 5, Saturday	M.A. Comprehensive Examination 8:00 a.m. PE 204-7 (candidates must have 24 Graduate Semester Hours completed by end of current term to qualify)
December 12, Saturday	Final Examinations for Saturday classes
December 15, 16, & 17	Final Examinations
December 18, Friday	Advance registration for spring semester is cancelled unless financial arrangements are completed by this date. Final grades for fall semester are due. Last meal served at noon Residence halls close at 4:00 p.m.

Spring Semester, 1988

January 3, Sunday	Residence halls open at 1:00 p.m. First meal served at 4:30 p.m.
January 4, Monday	Registration - 2:00-6:30 p.m.
January 5, Tuesday	Registration continued 9:00 a.m. - 4:30 p.m. (Late fee charged after this date)
January 6, Wednesday	Classes begin. Last day to submit application for Independent Study
January 11 - 15	First week for refund purposes
January 13, Wednesday	Last day to register for spring semester or change schedules (Must be accomplished before the second class meeting) Last day to apply for graduation
February 13, Saturday	Written exercise (qualifying applicants to graduate candidacy) required of 5th-Year and M.A. applicants during first 12 semester hours of graduate work
March 4, Friday	Spring vacation begins; no classes Last meal served at noon Residence halls close at 4:00 p.m.
March 5, Saturday	NTE-Core Battery

March 13, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
March 14, Monday	Classes resume.
March 26, Saturday	NTE-Specialty Area
April 1, Friday	Easter vacation; no classes Residence halls remain open; food service available
April 4, Monday	Classes resume.
April 6, Wednesday	Last day to withdraw from a course with a grade of "W"
April 9, Saturday	M.A. Comprehensive examination 8:00 a.m. PE 204-7 (Candidates must have 24 graduate semester hours completed by end of current term to qualify.)
April 21, Thursday	Advance registration begins for May Interim and Summer Sessions
April 30, Saturday	Final examinations for Saturday classes
May 2, Monday	Advance registration for May Interim is cancelled unless financial arrangements are completed by this date.
May 3, 4, & 5	Final Examinations
May 6, Friday	Final grades for spring semester are due.
May 7, Saturday	Commencement; 10:30 a.m., Conway Boatman Chapel Residence halls close at 4:00 p.m. Last meal served at noon

May Interim, 1988

May 8, Sunday	Residence halls open at 1:00 p.m. First meal served at 4:30 p.m.
May 9, Monday	Registration for May Interim until 6:30 p.m. Classes begin according to schedule
May 10, Tuesday	Last day to register for May Interim or change schedules. (Must be accomplished before second class meeting)
May 13, Friday	Last day to withdraw from a course with a grade of "W"
May 23, Monday	Advance registration for first summer session is cancelled unless financial arrangements are completed by this date.
May 27, Friday	Final Examinations.

Summer, 1988 - First Session

May 29, Sunday	Residence halls open for new students at 1:00 p.m. First meal served at 4:30 p.m.
May 30, Monday	Registration (Students may register for both summer sessions) Late fee charged after this date. Classes begin as scheduled.
June 3, Wednesday	Last day to register for first summer session or change schedules (Must be accomplished before second class meeting)
June 15, Wednesday	Last day to withdraw from a course with a grade of "W"
June 25, Saturday	NTE-Core
July 1, Friday	Advance registration for second summer session is cancelled unless financial arrangements are completed by this date. Final Examinations for first summer session

Summer, 1988 - Second Session

July 4, Monday	Holiday - Independence Day
July 5, Tuesday	Registration Late fee charged after this date Classes begin on regular schedule.
July 7, Thursday	Last day to register for second summer session or change schedules (Must be accomplished before the second class meeting)
July 9, Saturday	NTE-Specialty Area
July 16, Saturday	M.A. Comprehensive examination 8:00 a.m. PE 204-7 (Candidates must have 24 graduate semester hours completed by end of current term to qualify)
July 20, Wednesday	Last day to withdraw from a course with a grade of "W"
August 2, Tuesday	Advance Registration for fall semester

August 5, Friday	Final Examinations for second summer session
August 6, Saturday	Last meal served at noon Residence halls close at 4:00 p.m.
Fall Semester, 1988	
August 31, Wednesday	Advance registration for fall semester is cancelled unless financial arrangements are completed by this date.
September 4, Sunday	Residence halls open at 8:00 a.m. First meal served at noon
September 5, Monday	Holiday - Labor Day, no classes
September 6, Tuesday	Registration for Fall Semester 2:00-6:30 p.m. Application for May Graduation should be completed.
September 7, Wednesday	Registration for fall semester continues Late fee charges after this date Last day to submit application for independent study
September 8, Thursday	Classes begin.
September 12 - 16	First week for refund purposes
September 15, Thursday	Last day to register for fall semester or change schedules (Must be accomplished before second class meeting)
October 8, Saturday	Written exercise 9:00 a.m. Sc. 210 (qualifying applicants to graduate candidacy) required of 5th-Year and M.A. applicants during first 12 semester hours of graduate work
October 22, Saturday	NTE-Core (Required of M.A. and Fifth-Year Candidates)
November 12, Saturday	NTE - Specialty Area
November 16, Wednesday	Last day to withdraw from a course with a grade of "W"
November 22, Tuesday	Last meal served at 4:30 p.m.
November 23, Wednesday	Residence halls close at 10:00 a.m.
November 23 - 27	Thanksgiving vacation - no classes
November 27, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
November 28, Monday	Classes resume. Advance registration begins for spring semester.
December 3, Saturday	M.A. Comprehensive 8:00 a.m. PE 204-7 (candidates must have 24 graduate semester hours completed by end of current term to qualify)
December 10, Saturday	Final examinations for Saturday classes
December 13, 14, 15	Final examinations
December 16, Friday	Advance registration for spring semester is cancelled unless financial arrangements are completed by this date. Final grades for fall semester are due. Last meal served at noon Residence halls close at 4:00 p.m.
Spring Semester, 1989	
January 2, Monday	Residence halls open at 1:00 p.m. First meal served at 4:30 p.m.
January 3, Tuesday	Registration - 2:00 - 6:30 p.m.
January 4, Wednesday	Registration for spring semester continues 9:00 a.m. - 4:30 p.m (Late fee charged after this date) Last day to submit application for Independent study
January 5, Thursday	Classes begin.
January 9 - 13	First week for refund purposes
January 11, Wednesday	Last day to register for spring semester or change schedules. (Must be accomplished before second class meeting) Last day to apply for May Graduation
February 11, Saturday	Written exercise (qualifying applicants to graduate candidacy) required of 5th-Year and M.A. applicants during first 12 semester hours of graduate work

March 3, Friday	Spring vacation begins. - no classes Last meal served at noon Residence halls close at 4:00 p.m.
March 4, Saturday	NTE-Core (Required of M.A. and Fifth-Year Candidates)
March 12, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
March 13, Monday	Classes resume.
March 24, Friday	Easter vacation - no classes (Residence halls remain open; food service available)
March 25, Saturday	NTE - Specialty Area
March 27, Monday	Classes resume.
April 1, Saturday	M.A. Comprehensive examination 8:00 a.m. PE 204-7 (candidates must have 24 graduate semester hours completed by end of current term to qualify)
April 5, Wednesday	Last day to withdraw from a course with a grade of "W"
April 13, Thursday	Advance registration begins for May Interim, Summer Sessions I and II
May 1, Monday	Advance registration for May Interim is cancelled unless financial arrangements are completed by this date.
May 2, 3, 4	Final examinations
May 5, Friday	Final grades for Spring Semester are due.
May 6, Saturday	Commencement 10:30 a.m. Conway Boatman Chapel
May Interim, 1989	
May 8, Monday	Registration for May Interim until 6:30 p.m.
May 9, Tuesday	Classes begin according to schedule. Last day to register or change schedules (Must be accomplished before second class meeting)
May 12, Friday	Last day to withdraw from a course with a grade of "W"
May 22, Monday	Advance registration for the first semester is cancelled unless financial arrangements are completed by this date.
May 26, Friday	Final examinations
May 27, Saturday	Last meal served at noon Residence halls close at 4:00 p.m.
Summer, 1989, First Session	
May 28, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
May 29, Monday	Holiday - Memorial Day
May 30, Tuesday	Registration (Students may register for both Summer Sessions) Classes begin as scheduled. Late fee charged after this date
June 1, Thursday	Last day to register for first summer session or change schedules (Must be accomplished before second class meeting)
June 14, Wednesday	Last day to withdraw from a course with a grade of "W"
June 15, Thursday	Written exercise 9:00 a.m. Sc. 210 (Qualifying applicants to graduate candidacy) required of 5th-Year and M.A. in education degree applicants during first 12 hours of graduate work
June 24, Saturday	NTE-Core (Required of M.A. and Fifth-Year Candidates)
June 27, Tuesday	Advance registration for fall semester
June 28, Wednesday	Advance registration for second summer session is cancelled unless financial arrangements are completed by this date.
July 3, Monday	Final examinations for first summer session

Summer 1989 - Second Session

July 4, Tuesday	Holiday - Independence Day Registration
July 5, Wednesday	Classes begin as scheduled. Late fee charged after this date
July 7, Friday	Last day to register for second summer session or change schedules (Must be accomplished before the second class meeting)
July 8, Saturday	NTE-Specialty Area
July 15, Saturday	M.A. Comprehensive examination 8:00 a.m. PE 204-7 (Candidates must have 24 graduate semester hours by end of current year to qualify.)
July 19, Wednesday	Last day to withdraw from a course with a grade of "W"
July 31, Monday	Advance registration for fall semester
August 4, Friday	Final examinations for second summer session
August 5, Saturday	Last meal served at noon Residence halls close at 4:00 p.m.

Fall Semester, 1989

August 30, Wednesday	Advance registration for fall semester is cancelled unless financial arrangements are completed by this date.
September 3, Sunday	Residence halls open at 8:00 a.m. First meal served at noon
September 4, Monday	Holiday - Labor Day
September 5, Tuesday	Registration - 2:00-6:30 p.m.
September 6, Wednesday	Registration continues - 9:00 a.m.-4:30 p.m. Late fee charged after this date
September 7, Thursday	Classes begin as scheduled. Last day to submit application for independent study
September 11 - 15	First week for refund purposes
September 15, Friday	Last day to register for fall semester or change schedules (Must be accomplished before the second class meeting)
October 14, Saturday	Written exercise (Qualifying applicants to graduate candidacy) required of 5th-Year and M.A. applicants during first 12 hours of graduate work
October 28, Saturday	NTE-Core (Required of M.A. and Fifth-Year Candidates)
November 11, Saturday	NTE-Specialty Area
November 21, Tuesday	Last day to withdraw from a course with a grade of "W" Last meal served at 4:30 p.m.
November 22, Wednesday	Residence halls close at 10:00 a.m.
November 22 - 26	Holiday - Thanksgiving
November 26, Sunday	Residence halls re-open at 1:00 p.m. First meal served at 4:30 p.m.
November 27, Monday	Classes resume as scheduled. Advance Registration for spring semester.
December 2, Saturday	M.A. Comprehensive examination 8:00 a.m. PE 204-7 (Candidates must have 24 graduate semester hours completed by end of current term to qualify)
December 9, Saturday	Final examinations for Saturday classes
December 12, 13, 14	Final examinations for fall semester
December 15, Friday	Advance registration for spring semester is cancelled unless financial arrangements are completed by this date. Final grades for fall semester are due. Last meal served at noon Residence halls close at 4:00 p.m.

General Information

Location of the College

Union College is located in Barbourville, a residential town of 3,500, on U.S. Highway 25E midway between Lexington, Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. The Doctor Thomas Walker State Park is four miles from the campus and in adjoining counties are the Cumberland Falls State Park, the Levi Jackson State Park, and the Pine Mountain State Park.

Graduate students may enroll for a portion of their work in courses offered near their homes in off-campus locations at Corbin, Cumberland, Harlan, Hazard, Hyden, London, Manchester, Middlesboro, Pineville, and Whitley City.

Learning Resources

The ABIGAIL E. WEEKS MEMORIAL LIBRARY contains a collection of approximately 80,000 books and other materials in a newly expanded facility. Over 400 periodicals are received regularly, together with various indexes. The library is also a selective depository for U.S. government documents. Audio-visual and computer materials are integrated with the book materials, and everything possible is available for self-service use. Study spaces provide seating for 250 students, some in rooms designed for group study. The library staff places first priority on helping students use both the materials and the equipment. There is also a sizable special collection devoted to Abraham Lincoln and the Civil War, a Curriculum Center for students of education, and a collection of music recordings and scores.

The CENTER FOR ECONOMIC EDUCATION is located in Centennial Hall. As a member of the Kentucky Council on Economic Education (KCEE) and its national parent organization, the Joint Council on Economic Education (JCEE), Union College maintains this Resource Center for teachers in all grades. This is a repository for free materials which teachers can use in their classrooms.

Some examples of materials in the Center are simple computer programs which primary grade students can use to learn to count money; videotapes for use by high school students, for the gifted and talented students. A wide variety of written publications is also accessible.

Materials in the Center are available to any teacher requesting them.

Computing Facilities

The College has two microcomputer laboratories for student and faculty use. One is located in the Mahlon Miller Science Center and contains seven Apple IIe microcomputers. The other is in Centennial Hall and contains nineteen Radio Shack TRS-80 microcomputers and eight Leading Edge (MS-DOS - based) IBM compatible microcomputers. This laboratory also contains terminals connected to the College's Hewlet Packard-3000 minicomputer. The laboratories are staffed by student laboratory assistants and are open approximately sixty hours each week, primarily during weekday afternoons and evenings. Laboratory assistants are trained to instruct students in the use of all the facilities. Members of the computer faculty are also available for any additional instruction or assistance.

The laboratory in Centennial Hall is equipped with a wide variety of software. Commercial statistical packages are available for student use on the minicomputer and the IBM compatibles. Program packages for word processing,

spreadsheets, data base, and graphics as well as samples of educational software are available for the Apple IIe, TRS-80 and IBM compatibles. These packages may be used by graduate classes as well as by individual faculty and student researchers.

Campus Activities

Student activity fees are not required of graduate students; however, Graduate assistants, graduate students living on campus, or those residing near the campus are encouraged to take part in social and cultural functions of the college. Concerts, dances, special speakers, drama productions, movies and athletic events are available through the purchase of a student activity ticket each semester.

Automobiles

Automobiles parked on campus must be registered in the Business Office. All must display a legible parking permit sticker. The annual registration fee is $5.00. Stickers should be displayed on the rear window of the car on the driver's side. Cars should be parked in designated areas. Violation of parking regulations may result in vehicles being ticketed and fines charged against the student's account or towed away at the owner's expense. Parking for the handicapped is provided.

Housing

Full-time graduate students may elect to live on campus or obtain their own facilities in the community. Residence Hall rooms are available and may be obtained through contact with Dean of Students. All students living in the residence halls are required to obtain a boarding ticket and eat in the college dining hall.

A limited number of small housing apartments are available for students with not more than one child. Pets are not allowed. Applications for apartments should be made in advance with the Dean of Students.

Admissions

Admission to the Graduate Studies Program

General Requirements

All applicants for admission to the Graduate Studies Program must possess a baccalaureate degree from a regionally accredited four-year institution showing a grade point average (GPA) of 2.5 or better, based upon the four-point system.

An application form must be completed and submitted to the Office of the Dean of Graduate Academic Affairs no less than 30 days prior to the beginning of the school term. In addition to the application form, the student must provide the following documents:

(1) Two official Transcripts of the applicant's graduate and undergraduate work sent directly to the office of Graduate Academic Affairs by the institution(s) where the credits and/or degrees were earned:

(2) A copy of a valid Teachers Certificate noting areas in which the applicant is qualified to teach, enclosed with the application;

(3) Registration fee $15.00 accompanying the application. (This fee may be waived if the student possesses a Masters Degree or a Fifth-Year Certificate conferred by Union College.)

Fifth-Year Certificate Program (Valid in Kentucky)

In addition to the above general requirements, it is necessary that students applying for admission to the Fifth-Year Certificate Program provide:

(1) Transcripts that indicate completion of one teacher education program.

(2) Evidence that the applicant holds (or has held previously) a provisional teachers certificate.

(3) Two recommendations from professional persons who know the applicant. (Recommendation forms are available in the Graduate Office.)

Masters of Arts in Education Degree Program

The requirements for admission to the Master of Arts in Education Degree Program are the same as those specified for the Fifth-Year Certificate Program with the following addition:

The undergraduate transcript should indicate that a minor of 21 semester hours has been completed in the field of teaching desired in the student's Master's Degree Program. In the event that 21 semester hours in the minor have not been completed, the student may be admitted conditionally.

In order to qualify for full admission, the student may need to complete the deficient undergraduate course work in addition to the graduate level courses prescribed for the M.A. degree.

Rank I Program

Applicants for admission to a program leading to the awarding of a Rank I classification must have completed requirements for the M.A. in Education Degree or the Fifth-Year Certificate. A GPA of 3.0, based upon a four-point system, is necessary for unconditional admission to the program.

Elementary school teachers who have earned the Fifth-Year Certificate, but do not possess a Master's Degree in Education are not eligible for admission to certification programs in administration or supervision.

Uncertified Admissions

A limited number of students who do not possess teaching certificates may be admitted to the Graduate Program for the primary purpose of improving their academic background. Ultimately, these applicants may obtain certification provided they complete all of the course work and student teaching specified for the desired teaching certificate.

Grade Point Averages (GPA)

Applicants with GPA below the minimums specified for these programs may be approved as "conditional admissions." In such cases, the students must prove their ability to earn at least 3.0 GPA upon completion of the first 12 semester hours of graduate credit. Failure to achieve the 3.0 GPA level within the allowable 12 hours shall result in the recommendation that the student withdraw from the Program.

A graduate student is expected to complete requirements for the Masters in Education Degree, the Fifth-Year Program or the Rank I no later than five years after beginning course work. An extension of the time limit for an additional three years may be granted for sufficient reason by the Dean of Graduate Academic Affairs and the Graduate Council upon written petition from the student. If the course work is deemed reasonable within the framework of current knowledge and findings, or if for some physical reason the student has not been able to complete his/her work on schedule, consideration will be given for the extension of time.

The mimimum time needed to complete the graduate work is two full semesters or its equivalent in summer sessions and part-time study.

Courses offered by Union College in off-campus locations shall apply toward the requirements. Although a variety of courses is scheduled off campus, not all of the credits may be earned at these locations at the teaching of some courses is restricted to the campus.

Admission to Candidacy

Admission to any program leading to the M.A. degree in Education of Fifth-Year Certificate is not equivalent to admission to candidacy for the M.A. in Education degree or Fifth-Year Certificate.

Admission to candidacy for the M.A. degree in Education and for the Fifth-Year Certificate requires formal application to the Office of Graduate Academic Affairs and approval of the Graduate Council. The application is available in the Office of Graduate Academic Affairs and must be filed when the student has:

(1) Shown an aptitude for graduate study by the completion of 12 semester hours of graduate work with a grade point average of at least 2.5 for the Fifth-Year or 3.0 for M.A. degree in Education.

(2) Satisfied any deficiency in oral or written English that has been reported by a member of the faculty.

(3) Has successfully prepared a written exercise administered by the Office of Graduate Academic Affairs. The exercise will require each student to compose an essay of approximately 500 words on a topic drawn from choices provided by the Department of Education. The essay will be rated according to three criteria: (a) content, (b) structure, and (c) style.

All students enrolling the the graduate program after September 1, 1985 must fulfill this requirement before completing 12 semester hours of graduate credit. Complete details may be obtained from the Office of Graduate Academic Affairs.

(4) Shown evidence of a valid teacher's certificate. The only exception to this is that a limited number of persons are accepted without teaching certificates as noted elsewhere.

(5) Taken the Core battery of the National Teacher's Examination or the Graduate Record Examination (GRE) with scores acceptable within state guidelines. Students are required to take this examination before completing the first 12 hours of graduate work.

No standardized test scores will be accepted for tests taken prior to 1978.

Transfer Credit

A maximum of nine semester hours from a recognized and accredited graduate school may be transferred toward the M.A. degree in Education. For students working on Fifth-Year Certificate a maximum of 14 semester hours may be transferred. Fifteen semester hours may be transferred toward the Rank I program. Requests for transfer credit must be directed to the Dean of Graduate Academic Affairs, be appropriate to the student's planned program, and carry a grade of at least "B".

No credit is allowed toward the M.A. in Education degree for courses taken by correspondence or from unaccredited institutions. Transfer credit should have been earned within the five year period prior to graduation (or within eight years

if permission is received from the Dean and/or Graduate Council). Any exceptions to credits earned beyond this time period must be petitioned by the student to the Graduate Council. Conditions for time extention are stated under time limits above.

Planned Program

Planned student programs are required of all graduate students and are to be completed by the student and an advisor or Dean of Graduate Academic Affairs. The written program constitutes an agreement leading to the M.A. degree in Education and/or other certification programs. In order to assure that all academic requirements are met, the student's program must be finalized before the completion of two graduate courses. Any subsequent changes in the program must be approved by the Dean of Graduate Academic Affairs.

Maximum Course Loads

The maximum course load for full-time graduate students is fifteen semester hours for a regular semester, six hours per summer term, and three hours for an interim session. Graduate students engaged in full-time employment are restricted to six semester hours for a regular semester and three hours for a summer term. Ten hours per semester constitutes a full load. Students taking 10 or more hours must pay full tuition charges as found under expenses in this catalog.

Credit may not be earned concurrently at another institution without the permission of the Dean of Graduate Academic Affairs, and then only within the total limits indicated above.

Seniors as Part-Time Graduate Students at Union

The option to enroll in graduate courses (400G or 500 level) is open to seniors lacking no more than six credit hours for graduation and satisfying the following conditions:

1. The student's grade point average must be at least 3.0 on all work attempted.
2. The approvals of the Dean of Graduate Academic Affairs, the student's advisor and the Registrar must be obtained.
3. The total of the student's academic load may not exceed twelve credit hours for the semester.
4. All requirements for the undergraduate degree must be completed during the semester or summer in which the student is allowed to register for part-time graduate work.

Graduate credit will be allowed only for those courses completed beyond the requirements for the undergraduate degree.

In addition to the application for admission to the Graduate Studies Program, the student is required to file a petition form listing the course or courses to be taken to complete the undergraduate degree as well as courses to be taken for graduate credit.

The petition must be approved by both the Dean of Graduate Academic Affairs and the Registrar.

Independent Studies, TV Courses, Workshops

A student may take up to a total of 9 hours in TV courses, workshops, and independent studies at the Master's level, and up to a total of **12** hours on the 60 hour graduate program (M.A. + 30 or Rank I).

While the chief purpose of the independent study is to afford the student an opportunity to obtain credit for study outside the regular course offerings of the graduate program, permission may be granted under special conditions for a student to take a regularly scheduled course as an independent study.

Visiting students and students beginning their graduate studies are not permitted to take a course on an independent study basis.

Credit for independent studies done at other accredited institutions will be accepted provided such credit meets the Union College transfer credit requirements.

A student must have successfully completed nine semester hours of earned graduate credit in order to qualify for

independent study.

All proposals for independent study must be approved by the Dean of Graduate Academic Affairs. It is the student's responsibility to work with a professor in planning the course of study and to present the proposal for approval no later than three days after the registration date of the semester during which the work is to be accomplished. Forms for independent study must be obtained from the Office of Graduate Academic Affairs.

Comprehensive Examination

Upon completion of 24 graduate credit hours, graduate students become eligible to sit for a comprehensive examination which is required for the M.A. in Education degree. The salient aspects of the revised comprehensive examination as approved by the Graduate Council in December 1985 are as follows:

(1) All examination questions will be of the essay type. Multiple choice questions will no longer be used.

(2) The comprehensive examination will include four areas, each representing a one-hour section of the examination. These four areas are: 1) research, 2) professional knowledge, 3) a current topic in education and 4) the student's teaching field.

(3) The research question will require the analysis of a published research report and the interpretation of examples of commonly used statistical procedures.

(4) The professional knowledge portion will include questions representing each of the courses in the professional block of the MA in Education degree program. Students will write on any one of these questions.

(5) The third question will require all students to write on a current topic in education, the topic to be selected by the faculty examination committee. Students will be expected to have read widely in current education journals; copies of several professional journals will be made available in the library. A list of possible topics will be prepared sufficiently in advance of the examination to guide students in their reading.

(6) The fourth question will require the student to write on a topic in his or her teaching field.

The examination is scheduled in April, July and December of each year. Candidates must file an application for the comprehensive examination with the Office of Graduate Academic Affairs at least 30 days prior to the scheduled of the examination date. Students may take the examination three times. A student who fails one part of the examination and is scheduled to graduate at the end of that term may take an oral examination or repeat the examination on the next scheduled date.

Master of Arts Thesis

Students may opt to write a thesis in partial fulfillment of the requirements for the M.A. degree. The thesis is a systematic, written presentation of the results of a study, investigation or research. Thesis credit will fulfill six hours in the elective component of the M.A. program.

The Union College Graduate Council views the Master's Thesis as a completed document that demonstrates a high degree of competence in originality and creativity. Before registering for Educ. 599 (Thesis), the student must complete a total of 15 semester hours of graduate work including Educ. 500-Educational Research.

Students choosing the thesis route must have an advisory committee of at least 3 faculty members who regularly teach graduate courses. The chairman shall be from the student's major area of interest. At least one member shall be from the area of education, and at least one member shall be from outside the field of education. The Dean of Graduate Academic Affairs shall serve as ex officio member. The names of the committee shall be submitted to the Dean for approval.

The committee, appointed by the Dean of Graduate Academic Affairs, shall review the student's proposal to ensure that the problem to be investigated is a

significant one, that a thorough review of the literature has been conducted, and that the student is planning to use proper methodology.

The completed draft of the thesis (prepared according to standard guidelines) is to be presented to the chairman of the student's advisory committee at least 30 days before graduation. A final oral examination (conducted by the committee) on the thesis is to be successfully completed 10 days before graduation. Two copies of the completed thesis and an abstract (150-350 words) are to be presented to the Dean one week before graduation.

If the thesis is not completed within two semesters after the student registers for Educ. 599 (Thesis), the candidate must continue to register each semester until the thesis is completed. The student shall pay a continuous registration fee of one credit hour tuition charged each semester until the thesis is completed unless it is otherwise waived by the thesis committee. Exceptions must be recommended by the thesis committee and approved by the Graduate Council.

Detailed information concerning the thesis may be obtained in the Graduate Office.

The Marking System and Quality Points

Marks are reported in letters as follows:

- A-- Represents distinctly superior work, valued at four quality points for each semester hour.
- B-- Represents above average work, valued at three quality points for each semester hour.
- C-- Represents average work, valued at two quality points for each semester hour.
- D-- Represents inferior but passing work, valued at one quality point.
- F-- Indicates failure with 0 credits and 0 quality points for each semester hour.
- W-- Indicates that a student withdrew during the first 12 weeks of the semester.
- I-- Indicates that the student has not been able to complete the required work of the course due to unavoidable circumstances.

Incomplete Grade

An "I" received at the end of any semester must be removed before the end of the next semester if the student is enrolled for that term. If the student is not enrolled, the "I" must be removed before the end of the 12 month period following the date on which the "I" was received. Any exceptions to the time limit must be made by agreement of the instructor, Registrar, and the Dean of Graduate Academic Affairs. If an "I" is not removed within that time limit, it remains on the permanent record and cannot be made up.

If a course is repeated at Union College, only the second grade is used in computing the student's grade point average.

Course Numbering System

Courses numbered 400G are open to graduate students up to a maximum of 15 credit hours at the M.A. level and 6 credit hours at the Rank I level. Since these courses are available to advanced undergraduate students, care must be exercised to avoid duplication of courses already taken. Dual credit is not allowed in meeting graduation requirements.

Courses numbered 500 are limited to graduate students. Courses numbered 600 are intended primarily for Rank I students although 9 hours of 600 level courses may be taken by M.A. candidates. Any exception to this must be granted by permission of Dean of Graduate Academic Affairs.

Interdepartmental Numbers

Some special numbers are reserved for specific types of courses or studies. They may be used by any department offering graduate work although they are not shown in the specific catalog listings.

581, 681	"Special Topics"-classes developed on a one-time or experimental basis or a special innovative class
582, 682,	Special Workshop
583	Television courses through the Kentucky Educational TV Network
595, 695	Independent Study-research on approved topics not found in regular courses-may be repeated on different topics
599	Graduate Thesis

Expenses and Financial Aid

GRADUATE EXPENSES

(Regular Semester)

Tuition, per semester hour	$ 105.00
Full Time Tuition (10 or more hours)	2,160.00
Activity Card (full-time students)	25.00
Room and Board**(19-meal week)	1,025.00
Private room additional)	100.00
Married Student Apartment (per month, including utilities)	140.00

FEES

Late Registration Fee*	15.00
Admission Fee	15.00
Graduation Fee (M.A. and 5th-Year)	35.00
Graduation in Absentia Fee	25.00
Transcript (after first free copy)	3.00
Audit fee, per semester hour	15.00
National Teacher's Examination (Core Battery)	48.00
M.A. Comprehensive Examination	5.00

SUMMER EXPENSES

(5-Week Summer Session)

Tuition, per semester hour	105.00
Room and Board (19-meal week)**	330.00
Room and Board (15-meal week)**	280.00
Private Room (Additional)	30.00

(3-Week May Interim)

Tuition, per semester hour	105.00
Room and Board (19-meal week**	200.00
Private Room (Additional)	20.00

Short-term courses and workshops running for less than the stated time would have room and board charges prorated accordingly.

*Late registration fee can be waived by the Registrar for sufficient reason if permission is requested in advance.

**Room and Board is subject to change pending contract agreements.

Payment Policy

I. Financial Clearance

A student will be cleared for registration only if all previous balances have been paid. The new semester's account must then be paid in full, or a signed payment plan and first installment completed. Summer school and short sessions must be paid in full at the date of registration - no payment plan is permitted for summer or short sessions.

A student having any unpaid balance will not be cleared for the release of an official report of grades, a transcript of credits, or a diploma.

II. Advance Registration

In case of advance registration, if financial arrangements are not completed by the date indicated on the class schedule, the advance registration will be removed from the computer and the registration procedure will have to be repeated.

III. Finance Charge

A monthly finance charge of one and a half percent (18% annual rate) will be added to any unpaid balance of a student's account.

IV. Payment Plan

If the new semester's account cannot be paid before registration, a payment plan signed by the student can be completed and a first installment paid down. The payment plan requires one-third payment on each of the following dates after which the student will be withdrawn from courses if the account is not paid up:

A. On or before fall semester or spring semester registration - one-third.

B. Due October 5th (fall semester) or February 5th (spring semester - one-third 1½%.

C. Due November 5th (fall semester) or March 5 (spring semester) - one-third 1½%.

Students who owe balances on their accounts after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

Refund Information

Since faculty contracts and other commitments are made by the College for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

(1) A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.

(2) A full refund may be obtained for a class only if a student has never attended that class.

(3) Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.

(4) Tuition and room charges will be refunded on the following basis:

Regular Semester - Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week.

Summer and Short Terms - Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.

(5) **Refund of Overpayment on Student Account** - If a student make an overpayment on his or her account, a written request for refund must be submitted to the Business Office within one year after the end of the last academic term for which the student was enrolled.

(6) **Room Reservation Deposit** - This deposit will be refunded if the request is made in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor is no longer enrolled as a student at Union College and that he or she has left the housing facility undamaged and does not owe other bills. The request for this authorization must be made within one year after the end of the academic term for which the student was enrolled.

(7) Questions regarding refunds may be addressed to the Dean of Students or appealed to the Vice President for Student Affairs.

Financial Assistance:

Limited financial aid and work-study opportunities are available to graduate students who demonstrate financial need. All students must demonstrate need by filing a Financial Aid Form (FAF) for any type of financial assistance. The Financial Aid Office can supply the necessary application forms. Application should be made two months prior to enrollment.

Perkins Loans (formerly National Direct Student Loans) are available to full-time graduate students, (12 semester hours or more, who demonstrate need). The interest rate is 5% and repayment begins six months after the student graduates or drops below six hours enrollment.

Guaranteed Student Loans (GSL) are available also after filing the FAF through banks in a student's home state. The interest rate is 8% with a 6-month grace period following less than half-time (6 hours) enrollment.

Students eligible for Veteran's Benefits should contact the Registrar for information concerning procedures required to receive those benefits.

Before

After

Our latest addition to the Abigail E. Weeks Memorial Library (1987)

Curricula

Degree and Certificate Requirements

The Masters of Arts in Education program is primarily designed for in-service teachers in public schools. Graduating requirements include the completion of a planned program listed in this section, a minimum grade point average of 3.0, satisfactory performance on the Comprehensive examination, and completion of 21 hours at Union College. Candidates should review the catalog section on academic information concerning candidacy, transfer credits, time limits, and credit loads. A minimum of 15 credit hours must be earned in courses numbered 500 or higher. Students may opt to write a thesis (six semester hours) in lieu of taking six hours of course work in the elective component.

Elementary Education

The planned Fifth-Year Program required for the renewal of provisional elementary teaching certificates shall be planned as outlined by the Kentucky State Department of Education and shall be accepted as an equivalency for a Rank II classification in Kentucky. Union College has adopted the following two plans whereby students may earn Rank II Classification:

1. Completion of the Master of Arts in Education degree
2. Completion of the fifth-year non-degree program

Elementary Education Curriculum

(M.A. in Education, Standard Elementary Certificate, and Rank II)

All curricula listed meet certification requirements of the Kentucky State Department of Education. Students from states outside of Kentucky are advised to check with their state department of education if certification is desired. An M.A. degree in education does not ensure certification.

1. Professional Education ..... 9 semester hours
   Required:
   EDUC 500, EDUC 520 or 530 (one course)
   One course from the following: EDUC 501, 502, or 600, PSYH 600, 650
2. Specialization Component ..... 12 semester hours
   Non- education courses which strengthen the background of the elementary teacher should be carefully chosen. The following courses are suggested: ECON 601; ENVS 469G, 550; GNSC 401G, 525, 561; HLTH 451G, 582; MATH 532; HIST 521, SOCI 421G, 511, PSYH 460G, 470G, 565. Courses should **not** be chosen from the same field.
3. Electives ..... 9 semester hours
   Any of the above courses or other graduate courses may be chosen. Students electing to continue their training in administration may use these electives to begin an administrative program or strengthen their backgrounds in behavioral science. EDUC 441G, 468G, 511 and 603 are strongly recommended.

Elementary Education Curriculum (Fifth-Year, Non-Degree Program.)
(Provisional Certificate renewal, Rank II)

The student must fulfill the following requirements for the Fifth-Year Certification:

1. Plan a 32-semester-hour program of studies with an advisor or Dean of Graduate Academic Affairs.
2. Achieve a grade point average of at least 2.5 in the program.
3. Include 12 semester hours of the program in professional education courses.
4. Earn twelve hours of credit in the student's field of specialization.
5. Complete at least 18 hours of credit at Union College (six hours may be ap-

proved on the undergraduate level for the program if such training will strengthen the teacher's performance. No credit will be allowed for correspondence study.

The State Department of Education allows an option whereby some Continuing Education Units (CEU) and in-service training may be credited toward the certificate.

Students desiring to earn CEU credit(s) at another institution must obtain permission from the Dean of Graduate Academic Affairs to transfer such credit toward the Fifth-Year Certificate Program at Union College.

Requirements for Fifth-Year Certificate*

1. Professional Education ..... 12 semester hours
   Must include: EDUC 520 or 530, 603
   One course from: EDUC 501, 502
   One course from: PSYH 600, 650
2. Specialization Component ..... 12 semester hours
   Courses must be chosen to strengthen the student's performance with approval by the advisor and/or Dean of Graduate Academic Affairs.
3. Electives ..... 8 semester hours
   May be chosen from the area of specialization or other graduate courses.

*Students earning the Fifth-Year certificate in Elementary Education are not eligible to enter Administrative Program. However, they may seek Rank I in elementary teaching.

Comprehensive exams are not required for the Fifth-Year certificate.

Kindergarten Teacher Preparation

An endorsement for teaching kindergarten shall be issued to an applicant who holds a valid certificate for classroom teaching at the elementary level and who has completed the program below for the kindergarten endorsement.

EDUC 440G. Introduction to Early Childhood Education ..... 3 hrs.
EDUC 542. Fundamentals of Kindergarten Education ..... 3 hrs.
EDUC 545. Practicum in Kindergarten Education ..... 6 hrs.

A portion of the kindergarten program may be included in the program leading to the standard elementary certificate. For details the applicant should consult the Graduate Office.

The Kindergarten program is offered in the summer in even numbered years.

Please note: Students with elementary certification desiring the kindergarten endorsement and who have completed hours toward the endorsement must complete the program by September 1, 1989.

Gifted Education Teacher Preparation

An endorsement as teacher for gifted education shall be issued to an applicant who holds a valid certificate for classroom teaching at the elementary school level, the middle grade level, or the high school level; who has completed at least (3) years of successful teaching experience; and who has completed the program listed below for the gifted endorsement. The endorsement shall be valid for the same grade levels as the base certificate.

EDUC 550. Foundations of Gifted Education ..... 3 hrs.
EDUC 551. Curriculum Development for Gifted Children ..... 3 hrs.
EDUC 552. Instructional Strategies and Materials ..... 3 hrs.
EDUC 553. Practicum for Gifted Education ..... 3 hrs.

A portion of the program may be included in the graduate program leading to a standard certificate at the elementary or secondary level. For details the applicant should consult the Graduate Office. The gifted education program is offered on demand.

K-4 Endorsement Program

The program of preparation for the endorsement for teaching at the K-4 level of certificate valid for classroom teaching in the **Middle** grades **or** at the **High School** level (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education).

A number of the required courses listed below is of graduate level and may be applied toward the M.A. degree in Education or Rank I Certification. Complete information is available in the Graduate Office.

1. Professional Preparation:

Education 351- Human Growth and Development ..... 3 hrs.
or
Psychology 600- Advanced Human Development ..... 3 hrs.
Education 361- Reading in the Primary Grades ..... 3 hrs.
or
Education 520- Techniques and Materials for Classroom Reading Instruction . 3 hrs.

*Education 341- Methods of Teaching Mathematics in Elementary School - 3 hrs.
or
*Math 532 - Modern Math Laboratory ..... 3 hrs.
*General Science 401G - Science: Concepts, Processes, and Inquiry - 3 hrs.
or
*GNSC 525 - Science for the Elementary Grades ..... 3 hrs.
*Education 441G - Methods of Teaching Social Studies ..... 3 hrs.
Education 433 - Supervised Student Teaching in the Elementary Grades - 6 hrs.
(K, 1, or 2 level
or
Education 635 - Laboratory Experiences ..... 3 hrs.
(K-4)
(Students must have completed at least one year of fulltime teaching).

*Coursework will contain experience with the use of computers and classroom experiences (K-4).

2. Related Studies:

Art 271- Elementary School Art ..... 3 hrs.
Music 373 - Elementary School Music ..... 3 hrs.
Physical Education 261 - Physical Education in the Elementary School - 3 hrs.
Health 451G - School and Community Health ..... 3 hrs.
Health Elective (graduate or undergraduate) ..... 3 hrs.
Candidates without a major, minor, or area of concentration in mathematics must complete one of the following:

Math 203, 204 - ..... 6 hrs.
or
Math 531 - Topics in Modern Math for Elementary Teachers ..... 3 hrs.

English 355 - Children's and Adolescent Literature ..... 3 hrs.

Middle Grade Endorsement Program (5-8)

(applicants who hold Elementary Certification)

The program of preparation for the endorsement for classroom teaching in the middle grades of a certificate valid for classroom teaching in the **Elementary** grades (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education).

Graduate level courses listed below may be applied toward the M.A. Degree in Education or Rank I Certification.

Requirements:

1. The applicant must hold **24 hours** in one of the following fields:
   English and Communications
   Mathematics
   Science
   Social Studies

Complete information is available in both the Registrar's and Graduate Office as to specific courses needed in the above fields.

2. Education 601 - Advanced Study of the Middle Grade Child ..... 3 hrs.
   or
   Educ 352 - Human Growth and Development in the Middle Grades 3 hrs.

3. Educ 370 - The Middle School Curriculum ..... 3 hrs.
   or
   Educ 583 - The Middle School (KET course) ..... 3 hrs.

Middle Grade Endorsement Program (5-8)

(applicants who hold Secondary Certification)

The program of preparation for the endorsement for classroom teaching in the middle grades of a certificate valid for classroom teaching at the **high** school level (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education).

Graduate level courses listed below may be applied toward the M.A. Degree in education or Rank I Certification.

Requirements

1. The applicant must hold **24 hours** in one of the following fields:
   English and Communications
   Mathematics
   Science
   Social studies

Complete information is available in both the Registrar's and the Graduate Office as to specific courses needed in the above fields.

2. Education 520 - Techniques and Materials for Classroom Reading Instruction
   or
   Education 620 - Teaching Reading in the Content Field ..... 3 hrs.

3. Education 601 - Advanced Study of the Middle Grade Child ..... 3 hrs.
or
Educ 352 - Human Growth and Development in the Middle Grades ..... 3 hrs.
4. Education 370 - The Middle School Curriculum ..... 3 hrs.
or
Educ 583 - The Middle School (KET course) ..... 3 hrs.

Reading Specialist Preparation

Requirements for the endorsement for reading specialist shall consist of the M.A. degree in Education plus completion of three years of successful classroom teaching, and shall be valid for the teaching level specified on the teaching certificate used as a base for the endorsement.

Elementary Reading Specialist Program

(M.A. in Education, Standard Elementary, Rank II, Reading Specialist Endorsement)

1. Professional Education ..... 9 semester hours
   Must include:
   Educ 500, Educ 530
   One course to be selected from:
   Educ 501, 502

2. Specialization Component ..... 12 semester hours
   Must include:
   Engl 421G or 401G
   Psyh 525, 565
   One course to be selected from:
   Psyh 470G, 600, 650

3. Related field ..... 9 semester hours
   Must include:
   Educ 532, 535
   Elective:
   Educ 603 or one course from component I, II

Secondary Reading Specialist Program

Part of the secondary reading specialist program may be earned at the M.A. degree level but the applicant must fulfill requirements as set forth in this catalog for the standard secondary certificate.
The following graduate courses must be taken in addition to the requirements for the standard secondary certificate:

EDUC 530. Diagnostic and Remedial Procedures in Reading ..... 3 hrs.
EDUC 532. Techniques and Materials for Remedial Reading ..... 3 hrs.
EDUC 535. Practicum in Teaching Reading with Clinic ..... 3 hrs.
PSYH 525. Psychology of Reading ..... 3 hrs.
Engl 421G or 401G ..... 3 hrs.
The reading specialist program is offered in the summer in odd-numbered years.

Secondary Education Curriculum (Degree Program)

Health Curriculum

(M.A. in Education, Standard Secondary Certificate,Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   EDUC 500, 501, 502, or 600
   Choose one course from:
   Psyh 600, 650

2. Health Component ..... 12 semester hours
   Select from Hlth. 451G, 475G, 551, 582, 595.
3. Electives ..... 6 semester hours
   Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

English Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   Educ. 500, 501, 502, or 600
   Choose one course from:
   Psyh. 600, 650

2. English Component ..... 15 semester hours
   Select Educ. 520 or 530 and four courses from:
   Engl. 401G, 402G, 419G, 421G, 521, 522, 541, 542, 572, or 595
3. Electives ..... 3 semester hours
   Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 or EDAD 630 suggested

History Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   Educ 500, 501, 502, or 600
   One course to be chosen from:
   Psyh 600, 650
2. History Component ..... 12 semester hours
   Must include: Hist 541
   Select from: History 421G, 446G, 470G, 475G, 521, 531, 551, 595.
3. Electives ..... 6 semester hours
   Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

Science Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include: Educ. 500, 501, 502, or 600
   Choose one course from: Psyh 600, 650

2. Science Component ..... 12 semester hours
   Students choosing to professionalize in one subject must take a minimum of 12 hours in that subject; those choosing to professionalize both a major and a minor subject must take a minimum of 6 hours in the minor. Three of these hours should be for research investigation (595) unless the M.A. thesis option is chosen below. (see course offerings in the catalog section of course descriptions.)

3. Electives ..... 6 semester hours
   Recommended:
   M.A. thesis (6 hrs.)
   or
   Educ 604 and EDAD 630 or 1 course from area (1) above or from other academic disciplines with approval of the Dean of Graduate Academic Affairs.

Social Science Curriculum*

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   Educ. 500, 501, 502, or 600
   One course to be chosen from:
   Psyh. 600, 650
2. Social Science Component ..... 12 semester hours
   Must include: Hist 541
   Select from: 421G, 433G, 460G, 464G, 511, 595
   Hist. 421G, 446G, 470G, 475G, 521, 531, 551, 595
3. Electives ..... 6 semester hours
   Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

*Open to those holding certification in a social studies concentration or having a history major or minor.

Psychology Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   Educ 500, 501, 502, or 600
   One course to be chosen from:
   Psyh. 600, 650
2. Psychology Component ..... 12 semester hours
   Select from: Psychology 402G, 460G, 461G, 470G, 565, 595, 640
3. Electives ..... 6 semester hours
   Select from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

Sociology Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. Professional Education ..... 12 semester hours
   Must include:
   Educ. 500, 501, 502, or 600
   One course to be chosen from:
   Psyh. 600, 650
2. Sociology Component ..... 12 semester hours
   Select from: SOCI 421G, 433G, 460G, 464G, 511, 595
3. Electives ..... 6 semester hours
   Select from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

Secondary Curriculum (Fifth-Year Non-Degree)

(Standard Certificate, Rank II)

Requirements for students holding provisional secondary teaching certification and desiring to earn a fifth-year non-degree program are listed below.

Students must:

A. Earn 32 semester hours of credit of which at least 18 semester hours shall be graduate credit.
B. Take only graduate level courses in the professional education component.
C. Take a minimum of six hours in the specialization component.
D. Attain a quality point standing of 2.5 overall.

1. Professional Education ..... 12 semester hours
   Must include:
   Educ 500, 501
   Choose one:
   Educ 502, 600, 604
   Choose one
   Psyh 600, 650
2. Specialization Component ..... 12 semester hours
   Must be selected from teaching major or minor or closely-related field. Course selection may include courses numbered 581, 682 (special topics) and/or 582, 682 (special workshops), however courses must be approved by advisor and Dean of Graduate Studies. See current catalog. Six hours must be graduate level.
3. Elective Component ..... 9 semester hours
   May be chosen from the area of specialization or other graduate courses--Education or non-Education, depending upon interests and needs of student. However, selection must be made in sequence with previous preparation. Courses numbered 583 (Kentucky Educational TV Network) may be included.

* Comprehensive exams are not required for the Fifth-Year Certificate.

ADMINISTRATIVE CERTIFICATION CURRICULA

(M.A. plus 15 semester hours)*

ELEMENTARY SCHOOL PRINCIPAL

The program of preparation for the Professional Certification for School Administration and Supervision, endorsed for the position of Elementary School Principal, shall consist of a minimum of 45 semester hours of graduate credit, including the master's degree. The applicant must have completed the graduate program for the Standard Elementary Certificate, and have three years of successful teaching experience

The required courses in addition to the M.A. degree** include:

EDUC 603- Elementary School Curriculum ..... 3 hrs.
EDUC 502- Curriculum Design ..... 3 hrs.
or
EDUC 600 - Advanced Curriculum ..... 3 hrs.
EDAD 655 - The Elementary School Principal ..... 3 hrs.
EDUC 401G - Introduction to Counseling and Guidance ..... 3 hrs.
EDAD 654 - Improvement of Instruction through Supervision ..... 3 hrs.
EDAD 675 - Internship and Seminar in Administration ..... 3 hrs.
EDUC 511 - Tests and Measurements ..... 3 hrs.
EDUC 500 - Methods of Educational Research ..... 3 hrs.

*Students outside Kentucky desiring Administrative Certification in their respective state should consult appropriate officials in that state for certification requirements.

**Some of the required courses are taken at the M.A. level.

Students holding the Standard Elementary Teaching Certificate and Elementary Principalship Certification may acquire endorsement certification as Secondary Principal by completing the following three hour courses:

1. The Secondary School Principal - EDAD 656
2. Secondary School Curriculum - EDAD 604
3. Internship and Seminar in Administration - EDAD 675

SECONDARY SCHOOL PRINCIPAL

The program of preparation for the Professional Certificate for School Administration and Supervision, endorsed for the position of Secondary School Principal, shall consist of a minimum of 45 semester hours graduate program for the Standard High School Certificate, and have three years of successful teaching experience.

The required courses in addition to the M.A. degree* include:

EDUC 604 - Secondary School Curriculum ..... 3 hrs.
EDUC 502 - Curriculum Design ..... 3 hrs.
or
EDUC 600 - Advanced Curriculum ..... 3 hrs.
EDUC 656 - The Secondary School Principal ..... 3 hrs.
EDUC 401G - Introduction to Counseling and Guidance ..... 3 hrs.
EDAD 654 - Improvement of Instruction through Supervision ..... 3 hrs.
EDAD 675 - Internship and Seminar in Administration ..... 3 hrs.
EDUC 511 - Tests and Measurements ..... 3 hrs.
EDUC 500 - Methods of Educational Research ..... 3 hrs.

*Some of the required courses are taken at the M.A. level.

Please Note: Persons applying for Kentucky certification as elementary, middle, or high school principal after January 1, 1988, must:

a. Take a state-administered written examination.
b. Complete a state-planned internship program.

Students holding the Standard Secondary Teaching Certificate and secondary principalship certification may acquire endorsement certification as elementary principal by completing the following three hour courses:

1. EDUC 603 - **Elementary School Curriculum** ..... 3 hrs.

2. EDAD 655 - **The Elementary School Principal** ..... 3 hrs.

3. EDUC 520 - **Techniques and Materials for Classroom Reading Instruction**,or
   EDUC 530 - **Diagnostic and Remedial Procedures in Reading** ..... 3 hrs.

4. Select one of the following courses:
   EDUC 441G - **Teaching Social Studies** or Math 532 - **Modern Math Laboratory**
   or GNSC 525 - **Science for the Elementary Grades** ..... 3 hrs.

5. EDAD 675 - **Internship and Seminar in Administration** ..... 3 hrs.
   Students may fulfill this requirement for both elementary and secondary certification by working with an elementary and secondary principal concurrently.

Students desiring certification in principalship must fulfill requirements for the area of their undergraduate certification. That is, an elementary major who wishes to become a secondary principal must complete requirements for elementary principalship certification prior to or simultaneously with the secondary principalship endorsement. The same applies to a secondary major desiring certification in elementary principalship.

SUPERVISOR OF INSTRUCTION
(K-12)

The program of preparation for the Professional Certificate for School Administration and Supervision, endorsed for the position of Supervisor of Instruction, shall consist of a minimum of 45 semester hours graduate credit, including the master's degree. The applicant must have completed the curriculum of preparation for either the Standard Elementary Certificate or the Standard High School Certificate, and have three years of successful teaching experience. Students outside Kentucky should consult appropriate officials in their own state for certification requirements for the position.

The required courses in addition to the M.A. degree* include:
EDUC 520 - **Techniques and Materials for Classroom Reading Instruction** or
EDUC 530 - **Diagnostic and Remedial Procedures in Reading** ..... 3 hrs.
(Teaching of Reading is a pre-requisite). If student has had no reading courses, he/she must take both courses or an appropriate substitute in lieu of one of the above.
EDUC 511 - **Tests and Measurements** ..... 3 hrs.
EDAD 654 - **Improvement of Instruction through Supervision** ..... 3 hrs.
EDAD 675 - **Internship and Seminar in Administration** ..... 3 hrs.
EDAD 660 - **School and Community Relations** ..... 3 hrs.
PSYH 565 - **Psychology of Exceptional Children** ..... 3 hrs.
PSYH 640 - **Group Processes** ..... 3 hrs.
EDUC 603 - **Elementary School Curriculum** ..... 3 hrs.
EDUC 604 - **Secondary School Curriculum** ..... 3 hrs.

*Some of the required courses are taken at the M.A. level.

Director Of Pupil Personnel

The program of preparation for the Professional Certificate for School Administration and Supervision, endorsed for the position of Director of Pupil Personnel, shall consist of a minimum of 45 semester hours graduate credit, including the master's degree in education, a standard teaching certificate, and have three years of successful teaching experience.

The required courses include:

EDUC 500 - Methods of Educational Research ..... 3 hrs.
PSYH 600 - Advanced Human Development ..... 3 hrs.
EDAD 642 - Administration of Pupil Personnel Services ..... 3 hrs.
EDUC 643 - Pupil Personnel Accounting and Record Management .... 3 hrs.
EDUC 401G - Introduction to Guidance and Counseling ..... 3 hrs.
PSYH 565 - Psychology of Exceptional Children ..... 3 hrs.
EDUC 573 - Computers in Education* ..... 3 hrs.

*An undergraduate basic computer course may suffice for certification.

RANK I CLASSIFICATION

Kentucky's Rank I classification requires the completion of a planned program of 30 semester hours beyond the Master's level. The program for the Rank I must include a minimum of 12 hours of 600 level courses and may include a maximum of 6 hours of 400G level courses. Education 670-Directed Field Project is required of all students.

Each program is especially planned for the student and requires a conference with the Dean of Graduate Academic Affairs or an Advisor prior to enrollment. Up to 15 hours credit may be transferred from other graduate institutions if appropriate to the student's planned program and if the final grade achieved is at least a "B".

A grade point of at least 3.0 is required for certification and no comprehensive examination is required. Correspondence courses may not be transferred into the program.

Although each program is individualized, the guidelines below will prevail in the planning of the program. Some courses may have been taken at the Master's level, and appropriate courses may be substituted with the permission of the Dean of Graduate Affairs.

Students who are admitted to Rank I program must:

1. Make application. Have two different transcripts sent to Graduate Office, Union College. There is no fee for students who received the M.A. or 5th-year certificate at Union College.
2. Submit latest certificate earned to Graduate Office.

Students who complete requirements for Rank I must file a request in the Registar's Office for transcripts to be sent to appropriate officials. This applies to all students who are completing Rank I for certification or a change in rank or both. Proper Certification forms are available in the Registrar's Office and should be secured before the end of the term in which the student is completing his/her work.

ELEMENTARY OR SECONDARY TEACHER (Rank I)*

1. Professional Education ..... 9 semester hours
   Must include EDUC 500, 501, 670
   Suggested courses EDUC 511, PSYH 470G, 650
2. Specialization Component ..... 12 semester hours
   Include only Non-education courses.
   Suggested courses: PSYH 565 and 600
3. Related Fields ..... 9 semester hours
   Must include EDUC 603 or 604, EDAD 630
   Remaining courses should be selected from: EDUC 468G, 502, 600, 620

*Some courses listed as required may have been taken at the M.A. or Fifth-year level. Appropriate courses may be substituted by consulting with advisor or Dean of Graduate Academic Affairs.

READING SPECIALIST AND GIFTED EDUCATION

Certification in Gifted Education or as a Reading Specialist may be earned at Rank I level providing the requirements are fulfilled as listed in the previous section of the Catalog additional four 600-level courses are completed, including Education 670. Requirements for each of these programs may be found on page 23 and page 26 respectively.

KINDERGARTEN ENDORSEMENT

A person holding an elementary certificate may earn a Kindergarten Teaching endorsement at Rank I level providing the requirements are fulfilled by September 1989 The student must complete an additional four 600-level courses (including Educ. 670) Requirements for the Kindergarten endorsement may be found on page 23 of the catalog.

ELEMENTARY OR SECONDARY PRINCIPALSHIP*

(Principal's Certificate for Grades 1-8 or 7-12, and Rank I)*

1. Professional Education ..... 6-9 semester hours
   Must include: EDUC 500, 501, 511
   Suggested courses: PSYH 470G, 650
   Appropriate required courses may be selected from component 2 or 3 below.
2. Specialization Component ..... 9-12 semester hours
   Elementary Principalship must include:
   EDUC 603, 520 or 530, and EDAD 655
   Secondary Principalship must include:
   EDUC 604, EDAD 656.
   Elementary Principalship or Secondary Principalship must include:
   EDUC 401G, EDAD 654, 675
   Suggested courses: SOCI 511, PSYH 565, 600, 650
   EDAD 630, 640, 650, 660
3. Related Courses ..... 9-12 semester hours
   Must include: EDUC 502 or 600, 670
   Suggested: EDAD 645.

A minimum of four 600 level courses is required; a maximum of two 400G level courses may be taken. Three years of successful teaching experience at the level of certification is required for the Principalship endorsement.

*Students seeking certification in a state other than Kentucky should consult directly with that state for required courses.

**Some course work may have been earned at the M.A. level.

SUPERVISION OF INSTRUCTION*

(Supervisor's Certificate, Grades 1-12, and Rank I)**

1. Professional Education ..... 9-12 semester hours
   Must include: EDUC 500, 511, 670
   Suggested courses: PSYH 470G, 650, EDUC 501
2. Specialization Component ..... 9-12 semester hours
   Must include: EDAD 654, 660, 675
   PSYH 565 and 640
   (If all are needed, one may be applied to Component 3.)
3. Related Fields ..... 6-9 semester hours
   Must include: Six hours of reading courses, EDUC 520 or 530, 620
   (An undergraduate reading course may be substituted for one).
   Must also include: 603, 604
   Suggested courses: EDUC 468G, PSYH 600, 650, EDAD 630.

A minimum of four 600 level courses are required; a maximum of two 400G leve courses may be taken.

*Students seeking certification in a state other than Kentucky should consult appropriate officials in their own state for certification requirements for the position

**Some course work may have been earned at the M.A. level.

DIRECTOR OF PUPIL PERSONNEL

The program of preparation for the Professional Certification for School Administration and Supervision, endorsed for the position of Director of Pupil Personnel, shall consist of a minimum of 45 semester hours' graduate credit, including the Master in Education degree, and three years successful teaching experience, shall include the courses marked with an asterisk below.

One must hold either the Standard Elementary Certificate or the Standard Secondary Certificate, and must have 9 hours from the courses listed below including EDUC. 500 and PSYH 600 unless taken at the M.A. level.

EDUC 502 - Curriculum Design
EDUC 500 - Methods of Educational Research (required)
*PSYH 600 - Advanced Human Development (required)
PSYH 470G - Theories of Learning
EDUC 501 - History and Phil. of Educ.
EDUC 511 - Tests and Measurements

1. Professional Education ..... 9-12 semester hours
(9 hours selected from above)

If all courses have been completed, appropriate selections may be made from Components 2 and 3 below.

**EDUC 670 - Directed Field Project

2. Specialization Component ..... 15-18 semester hours
*EDAD 642 - Administration of Pupil Personnel Services
EDAD 643 - Pupil Personnel Accounting and Record Management
*EDUC 401G - Introduction to Guidance and Counseling
*PSYH 565 - Psychology of Exceptional Children
*EDUC 573 - Computers in Education
(an undergraduate basic computer course may suffice for certification.)
EDAD 600 - School and Community Relations
EDAD 630 - School Law
EDAD 645 - School Organization and Administration

3. Related Fields ..... 6-9 semester hours
EDAD 640 - School Finance & Business Management
PSYH 452G - Abnormal Psychology
SOCI 511 - Educational Sociology
EDUC 603 - Elementary School Curriculum
EDUC 604 - Secondary School Curriculum
*Required for certification for Director of Pupil Personnel
**Required for Rank I

When the courses marked with one asterisk above have been completed, the student is eligible for the certification-Director of Pupil Personnel, but in order to obtain Rank I the student must complete additional courses totaling 30 hours above the Master's, including 12 hours of 600 level courses.

Special Cooperative Nursing Program Union College Bellarmine College Curriculum for M.S.N. Program

A cooperative arrangement between Union College and Bellarmine College will provide registered nurses from the eastern Kentucky area an opportunity to pursue a Bachelor's and Master's degree in nursing at Union College. Selected liberal arts and elective courses will be taught by Union College faculty; professional nursing courses will be taught by Bellarmine College faculty on the Union College campus. Clinical experiences will also be offered in the area.

The M.S.N. Degree will be conferred by Bellarmine College. This program will offer the registered nurse an opportunity to recieve a M.S.N. without leaving eastern Kentucky. For further details contact the Graduate Academic Affairs Office.

Course Descriptions

Each course is offered for three semester hours of credit unless otherwise noted.

BIOLOGY

BIOL 561. Topics in Biological Science.

A lecture and discussion approach to topics and issues of contemporary importance and interest in the biological sciences. One topic will be extensively explored each term or semester that the course is offered. The course may be repeated when an alternate topic is emphasized. Possible topics include: Cancer, Immunobiology, Human Evolution, Human Reproduction and Development, Human Genetics, Plants and People, etc.

BIOL 600. Research Investigations.

An independent research problem in which the student must demonstrate his ability to employ the scientific method in carrying out an original scientific investigation. A typewritten and bound manuscript will be required. An examination may or may not be given, depending on the nature of the problem selected. Prerequisite: Permission of the instructor and approval of the head of the department.

CHEMISTRY

BIOC 421G. Biochemistry.

Study of Chemistry, energetics and metabolism of biomolecules, such as, carbohydrates, proteins, lipids, nucleic acids, enzymes and vitamins with reference to living systems. Prerequisite: CHEM 312 Organic Chemistry or its equivalent.

CHEM 561. Selected Topics in Chemistry.

Topics to be chosen from current and/or specialized areas of chemistry such as industrial or environmental chemistry and will vary according to student need. May be repeated for a maximum of 6 credit hours if topics differ. For secondary teachers of chemistry, physics and biology.

CHEM 600. Research Investigations.

An introduction to research in which the student must demonstrate an ability to use the scientific method by conducting an original scientific investigation. A typewritten report will be required. An examination may or may not be given depending on the nature of the problem selected. Prerequisite: Permission of instructor and approval of the Division Chair and Dean of Graduate Academic Affairs.

ECONOMICS

ECON 601. Economics for Teachers.

This course is designed for teachers in any subject area, at any grade level, and assumes no background in economics. Its purpose is to share with teachers the variety and scope of opportunities to include economic education in whatever they teach. Teachers in this course discover that they already know and teach economics, without realizing it, and learn of ways to expand this instruction, or to develop their own plan of how they can teach economics to their students. Teachers pursuing any advanced degree qualify for the course.

EDUCATION

EDUC 401G. Introduction to Counseling and Guidance.

Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges and related service oriented agencies. Includes essential counseling and guidance services, policies, practices and procedures.

EDUC 440G. Introduction to Early Childhood Education.

Survey of the physical, emotional, mental, and psychological development of the child under six, and the role of the kindergarten teacher in working with such a child.

UC 441G. Teaching Social Studies.

Methods and materials for the teaching of elementary school social studies including kindergarten through eight curricula. The philosophies, terminology, and evaluation methods and materials will be included.

UC 468G. Educational Media.

Gives practice in operating educational media and construction of classroom materials. Emphasis given to educational television use in the classroom.

UC 500. Methods of Educational Research.

Types of research, selection of problems, collection and classification of data; organization, presentation, and interpretation of materials. Includes unit on computer use and practice.

UC 501. History and Philosophy of Education.

Historical antecedents of American education as well as an analysis of the growth of various educational philosophies are explored. Particular attention is given to the five main philosophical approaches to teaching - essentialism, experimentalism, reconstructionism, existentialism and perennialism with a major emphasis placed on students developing a rationale and strategy for incorporating these ideas in the classroom setting.

UC 502. Curriculum Design.

Curricula organization, materials, and methods. Techniques for evaluating and constructing curricula. A unit on dealing with the curriculum for the exceptional child is included.

UC 510. Basic Statistics.

Designed to aid teachers and administrators in their understanding and use of elementary statistical terminology and procedures. A limited set of statistical concepts useful in analyzing data from published research is presented as part of the course.

UC 511. Tests and Measurements.

Instruments and techniques for evaluating abilities, aptitudes, personality traits, and interests examined and teacher-made evaluative instruments given special emphasis. Application of test results to vocational and educational guidance stressed. A unit on dealing with the exceptional child in the evaluative process is included.

UC 520. Techniques and Materials for Classroom Reading Instruction.

A foundation course which includes a general review of the following reading skills: Word recognition, comprehension, and fluency. Also, an in-depth study of the various approaches to teaching reading will be included. Students will become familiar with various techniques of instruction, the organization of the reading program, and a variety of reading materials. Simple methods of diagnosis are discussed.

UC 530. Diagnostic and Remedial Procedures in Reading.

Current research findings in diagnostic and remedial procedures in reading. Techniques for applying diagnostic instruments for locating causes of serious reading deficiencies are developed, along with suggested remedial procedures.

UC 532. Techniques and Materials for Remedial Reading.

Techniques and materials appropriate to the diagnosis and correction of reading difficulties. Course requirements include auditory and visual screening, diagnostic testing, and conduction of a clinical case study. Prerequisite: Education 530. Offered in odd numbered years only.

UC 535. Practicum in Teaching Reading with Clinic.

Practice involving traditional and behavioral science methodologies for remediation of reading disabilities. Extensive experience using group methodology that employs operant conditioning, repondent, and perceptual learning paradigms. Normally taken concurrently with Psychology 525 - Psychology of Reading. offered in odd numbered years only.

EDUC 540. Laboratory Experiences in Elementary Education (1-8).

A substitute for student teaching for elementary majors. Considers current problems and trends in teaching with laboratory periods for construction of classroom materials. Classroom teaching experiences with elementary children are included. Prerequisite: One year of successful classroom teaching experience. Summer only.

EDUC 542. Fundamentals of Kindergarten Education.

This course focuses on kindergarten curriculum, materials, organization of the kindergarten program, creative experiences for the pre-school child, parent education and home visitation, understanding of families, community resources, plannng learning experiences, and evaluation of pupil programs and progress. Direct observation and participation in the kindergarten setting.

EDUC 545. Practicum in Kindergarten Education. (Six hours credit)

This course offers direct, guided, supervised experience with kindergarten children under the supervision of a qualified kindergarten teacher. Offered in even numbered years only.

EDUC 550. Foundations of Gifted Education.

A study on gifted education that will enable teachers to identify and work with the gifted student. Includes discussion of the various categories of giftedness other that I.Q. The course will also include: screening and evoluating, needs assessment, and counseling techniques.

EDUC 551. Curriculum Development for Gifted Education.

This course involves designing curriculum models and curriculum guides, and developing scope and sequence charts for gifted education. The course offers exploration into the different types of programs and how these programs will be implemented. It will make an attempt to fit the program to the giftedness of individual students.

EDUC 552. Instructional Strategies and Materials for Releasing Creativity in Gifted Education.

The course focuses on instructional strategies and materials needed for releasing creativity for the gifted student. It will have a relaxed atmosphere conducive to drawing forth creative and inductive thinking on the part of the student. A variety of sources of materials will be used.

EDUC 553. Practicum for Gifted Education.

A supervised practicum course in gifted education for teachers who have successfully completed at least three years of teaching experience. The course emphasizes working directly with gifted students; writing units, lesson plans, developing learning centers, and doing demonstration teaching in the classroom with gifted students from the community.

EDUC 560. Supervision of Student Teaching.

Designed for classroom teachers who assume the responsibility of supervising student teachers. Experiences deemed necessary for developing students into effective teachers are considered. Prerequisite: One year of teaching experience or consent of the instructor.

EDUC 573. Computers in Education.

Designed for teachers, supervisors and administrators. A hands-on experience with microcomputer operation, introduction to BASIC, use of software, and information about instructional and management uses in schools. No previous experience with microcomputers required.

EDUC 595. Graduate Independent Study. (one-three hours)

Guided study and research toward the solution of specific educational problems encountered by students. Open to students at 5th year level.

EDUC 599. Thesis (by arrangement) - Six hours credit

EDUC 600. Advanced Curriculum.

Study of theory, principles, practices, procedures in current curriculum development and reorganization. Prerequisites: Education 502, 603, or 604 or by permission of professor.

EDUC 601. Advanced Study of the Middle Grade Child.

Focuses on the physical, intellectual, personal, social and moral development of children in fifth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media will also be included. Some attention is given to other age groups. (offered on demand).

EDUC 603. Elementary School Curriculum.

Curricular organization, materials, and methods currently used in elementary schools. Techniques for evaluating and constructing curricula.

EDUC 604. Secondary School Curriculum.

Curricula organization, materials, and methods currently used in secondary schools. Techniques for evaluating and constructing curricula.

EDUC 620. Teaching Reading in the Content Field.

Consideration of provisions and procedures for developing reading skills needed at the upper elementary and junior-senior high school level; various types of reading improvement programs, reading tests, and remediol programs at the upper grade levels. Education 520 or 530 recommended as prerequisites.

EDUC 635. Laboratory Experience in Education. (K-4)

A substitute for student teaching for early childhood (K-4) majors. The course will include current problems and strategies in teaching with laboratory periods for construction of classroom materials. Classroom teaching experiences with young children will be included. Prerequisite: one year of successful classroom experience. Summer only.

EDUC 670. Directed Field Project.

Required in all Rank I programs. Under the direction of a faculty supervisor, the student works on a problem of practical significance in the classroom, school, or school district. Following prescribed guidelines, the student prepares a formal project report which, upon approval, is bound and placed in the college field project collection. A written project proposal is prepared during the first month of the course, and students are expected to complete course requirements by the end of the term in which they are registered. Regular consultation with the project supervisor is required. Prerequisites: Completion of 12 semester hours toward Rank I certification, and permission of the project supervisor.

EDUC 695. Graduate Independent Study.

Guided study and research in area pertinent to the needs of the student at the 6th year level.

EDUCATIONAL ADMINISTRATION

EDAD 630. School Law.

History of legal provisions for public education in the United States, interpretation and application of present school law, federal and state.

EDAD 640. School Finance and Business Management.

Federal, state and local financing of schools, equalization of education opportunities, sources of school revenue, school budgets, business methods of accounting.

EDAD 642. Administration of Pupil Personnel Services.

Emphasizes roles and responsibilities related to the organization and administration of pupil personnel services.

EDAD 643. Pupil personnel Accounting and Records Management.

Emphasizes systematic procedures in pupil personnel accounting and records Management as related to the financing of public education and the protection of student rights.

EDAD 645. School Organization and Administration.

Organization of the modern public school, an understanding of such problems as staff-teacher relationships, program of studies, teacher records and reports, personnel and public relations, utilization of teacher time and physical facilities.

EDAD 650. School Plant and Transportation.
Planning, construction and maintenance of school plants. Also considers operation and administration of program for pupil transportation.

EDAD 654. Improvement of Instruction Through Supervision.
Techniques and methods for improving and evaluating classroom instruction in a modern day setting. (Students who have successfully completed course EDUC 550 should not take this course.)

EDAD 655. The Elementary School Principal.
An analysis of the role of the principal in the modern elementary school.

EDAD 656. The Secondary School Principal.
An analysis of the role of the principal in the modern secondary school.

EDAD 660. School and Community Relations.
An examination of school-community relationships. Special emphasis on leadership roles, operational modes, communication with regard to public school relations.

EDAD 675. Internship and Seminar in Administration.
A total of 90 clock hours in a practicum situation under a qualified administrator is required with a written record of experiences. Student qualifying for certification in Supervisor of Instruction must have experience under a general supervisor; students qualifying for elementary principalship must work under an elementary principal; students qualifying for secondary principalship must work under a secondary principal. Two seminars are held on campus.

If a student is pursuing elementary and secondary principalship certification one-half time (45 hours) must be given to each area under the appropriate administrators. The student must give equal time likewise if working toward Supervisor of Instruction Certification. Two seminars are held on campus. Prerequisites: EDAD 654 and EDAD 655 or EDAD 656.

ENGLISH

ENGL 401G. Modern Grammar.
A survey of modern approaches to the study of language beginning with the structuralist view of linguistic analysis through the theories of generative grammar to the most recent development in generative semantics. Considerable attention paid to the possibilities of practical application of linguistic theory. Even years only.

ENGL 402G. Advanced Composition.
For the student who wishes to become a more competent writer. Research papers, factual narratives, argumentation, and "creative" writing are assigned according to the needs and aptitude of the student.

ENGL 419G. Composition for Teachers.
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself. (On demand).

ENGL. 421G. History of the English Language.
A study of the origins and development of the English language from Anglo-Saxon times to the present. Supplementary readings in early and medieval English history with emphasis on the effects of historical events on language change.

ENGL 521. Advanced Study of English Literature, 500-1700.
Intensive study of some phase of English literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 522. Advanced Study of English Literature, 1700-Present.
Intensive study of some phase of English literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 541. Advanced Study of American Literature, 1600-1860.
Intensive study of some phase of American literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 542. Advanced Study of American Literature, 1860-Present.
Intensive study of some phase of American literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 572. Special Topics in Literature.
Intensive study of a literary topic of special interest to secondary teachers. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 595. Independent Study in English.
Independent study of research on an approved topic. May be repeated for credit.

ENVIRONMENTAL STUDIES

ENVS 469G. The Appalachian Environment.
Conservation of natural resources including soil, water, wildlife and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. Prerequisites: Two courses in environmental studies or biology and some knowledge of economics. Offered in Summers and on demand.

ENVS 550. Environmental Education Strategies.
A two-week workshop designed to foster a greater understanding of our environment through a combination of classroom and direct first-hand experiences. Conducted in cooperation with the USDA Forest Service and the Kentucky Division of Forestry. Offered in Summer only.

GENERAL SCIENCE

GNSC 401G. Science: Concepts, Processes, and Inquiry.
The student will examine the processes of science such as collecting data, measuring, predicting, formulating hypotheses, and experimenting. With the laboratory materials from the new science programs, he/she will explore their use in teaching children these processes. As materials from such programs as ESS, SCIS, IME, IIS, ISCS, are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching a science will be stressed, along with learning theory and laboratory equipment use (commercial and handmade).

GNSC 525. Science for the Elementary Grades.
Application of modern learning theories and psychological foundations to the teaching of science in the elementary grades. Includes discussion of trends in science education, applications of research to teaching, and special problems that occur in schools.

GNSC 561. Topics in Physical Science.

Enrichment and updating of elementary and middle grade school teachers on selected topics in astronom physical science and modern physics. Selected scientific American off-prints will be reviewed. Course w include several lecture demonstrations and hands on experience with some laboratory equipment.

GNSC 584. Plate Tectonics.

A theory which professional geologists scoffed at only a few years ago, has revolutionized earth scien in the last two decades. In this combination lecture/laboratory course, students will construct models ar analyze actual data to reconstruct the historical development of this important theory.

GNSC 595. Research Investigations.

An independent research problem in which the student must demonstrate his ability to employ the scientif method in carrying out an original scientific investigation. A typewritten and bound manuscript will b required. An examination may or may not be given, depending on the nature of the problem selecte Prerequisite: Permission of the instructor and approval of the head of the department.

HEALTH

HLTH 451G. School and Community Health.

Reveals the relationship needed between the school and community to promote the total health of the popu lation. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsore agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio visual aids. A variety of health areas are covered, including nutrition, nutrition and fitness, drugs, alcohol tobacco, human sexuality, and emotional health (stress).

HLTH 475G. Critical Areas in Health.

Specific health problems confronting society today with particular reference to secondary age students.

HLTH 551. Readings in Health.

A course enabling the students to research the literature in the area of health, not only to increase basi knowledge, but to become acquainted with current trends and issues.

HTLH 582. Safety Education.

Accident problems in the home, in the school, at work, and on the highways are discussed with the purpose of being able to influence those who teach by preparing them in the various areas of safety. Groups special ized in a variety of safety areas, such as National Safety Council, American Red Cross, Bureau of Mines and Kentucky State Police will be utilized.

HTLH 595. Independent Study.

Independent study in the field of health. May include practical field experiences.

HISTORY

HIST 421G. The Middle Period (1821-1850).

A detailed examination of Jackson, politics, and the culture of the period. Emphasis is on the Age as one of chaos and concerns the conflicting interpretations of the period.

HIST 446G. History of Russia.

Russian history since 1689.

HIST 470G. Twentieth Century America.

Selected topics on the Nation's history since 1900.

HIST 475G. Special Topics in History.

Designed for teachers in special areas of interest.

HIST 521. History and Culture of Appalachia.
This course focuses primarily on the impact of industrialization and modernization in Southern Appalachia since the Civil War. It emphasizes the great diversity of historical and cultural experience within the Region.

HIST 531. The American Revolutionary Era.
The background of the revolution. Continental Congress and the Confederation at work; internal problems and strife; military and naval events; foreign relations; the road to final independence and peace. Even years only.

HIST 541. Issues in Teaching History.
Required for History and Social Science Majors and Minors. Focuses on problems and issues faced by history teachers. Special attention is given to possible courses of action when the teacher is confronted by student-held popular myths regarding history. Summers only.

HIST 551. Civil War and Reconstruction.
A study of the Civil War and Reconstruction period in American history.

HIST 595. Independent Study. (by arrangement)

MATHEMATICS

MATH 531. Topics in Modern Math for Elementary Teachers.
A study from a historical and theoretical viewpoint of topics in mathematics taught in elementary grades. Number systems, number theory, real numbers, logic, geometry, probability and statistics. Credit not granted to students who have completed both Math 203 and 204. (Offered summers only).

MATH 532. Modern Math Laboratory.
An active involvement in laboratory experiments with multibase blocks, sets, Cuisenaire rods, geoboards, etc.; development of skills in the production and use of teacher make material; problem solving techniques Prerequisites: Math 531 or math 203-204. (Offered Summers only).

MATH 595. Independent Study.

PHYSICS

PHYS 600. Research Investigations.
An introduction to research in which the student must demonstrate an ability to use the scientific method by conducting an original scientific investigation. A typewritten report will be required. An examination may or may not be given depending on the nature of the problem selected. Prerequisite: Permission of instructor and approval of the Division Chair and Dean of Graduate Academic Affairs.

PSYCHOLOGY

PSYH 402G. Counseling Theories and Techniques.
Basic theories, types, and techniques of counseling. Practice an individual and group techniques of interviewing.

PSYH 460G. Theories of Personality.
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological, and stimulus-response theories included.

PSYH 461G. History and Systems of Psychology.
Origins of psychological thought within science and philosophy, tracing the development of systems and theories with German, British and American Psychology.

PSYH 470G. Theories of Learning.
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie Skinner, and Hull. Attention is given to the empirical support of various theories plus recent developments in cognitive psychology.

PSYH 525. Psychology of Reading.
Theory and applications of learning principles as applied to the reading processes. Major emphasis relates to respondent, operant, and perceptual learning paradigms. Offered in odd numbered years only

PSYH 565. Psychology of Exceptional Children.
Survey course of children with special educational needs. The nature, cause and intervention of exceptionality

PSYH 595. Independent Study.

PSYH 600. Advanced Human Development.
Psychological development from birth to maturity. Emphasis upon the principal concepts and problems in the development of the individual. A unit on the exceptional child is included.

PSYH 640. Group Processes.
A study of theory and practice in group dynamics. The process and implications of group processes, group counseling, and the human potentiality are explored.

PSYH 650. Advanced Educational Psychology.
The study of advanced psychological concepts and principles as applied to classroom management and student learning. Major emphasis is given to the translation of theoretical foundations of psychological knowledge to practical classroom applications. Behavioral, Cognitive, and Humanistic perspectives are explored in relation to teacher-student relationships.

SOCIOLOGY

SOCI 421G. Rural and Urban Sociology.
Comparative and interrelated study of urban and rural life considering the physical, institutional, social and economic factors of modern life in cities and in the countryside.

SOCI 433G. Social Change.
Introduces students to the problems of development and change. Examples will be drawn from Third World models of development, nationalism, imperialism, environmentalism, and human rights. The course is interdisciplinary, with emphasis on historical, economic, environmental and sociological aspects.

SOCI 460G. Sociological Theory.
The major theories which have proved useful in investigating the nature of society are examined as cultural products, ideologies, and scientific models. Special attention is given to major figures such as Comte Durkheim, Weber, Merton, C. Wright Mills, White, and Sorokin in the emergence and convergence of their theoretical development. Lecture and discussion in a seminar setting.

SOCI 464G. Sociology of Deviance and Criminology.
This course will develop an understanding of the social definitions and implications of deviance. Various types of deviant behavior and relevant theories of society will be addressed.

SOCI 511. Educational Sociology.
An analysis of schooling and education in a social, historic, and economic perspective. Special attention is given to the socialization of the child within and outside the school in light of the dominant culture forces in Western Society.

SOCI 595. Independent Study.

COLLEGE PERSONNEL

Graduate Studies Program Administration

JACK C. PHILLIPS, LL.D ..... President
PAUL S. MOORE, Ed.D. ..... Acting Vice President for Academic Affairs
H. WARREN ROBBINS, Ed.D. ..... Dean of Graduate Academic Affairs
E. EDWIN LeMASTER, M.A. ..... Registrar
CASSIE GALLION, A.A.S. ..... Secretary, Graduate Affairs Office

GRADUATE COUNCIL
1986-87

H. WARREN ROBBINS, Ed.D., Chairman ..... Dean of Graduate Academic Affairs
DEBORAH L. DAVIS, M.A. ..... Graduate Student Representative
JAN M. FINKEL, Ph.D. ..... Professor of English
C. EDWARD GIBSON, M.A. ..... Head Librarian
ARTHUR H. HAFNER, Ed.D. ..... Professor of Education
ELLA KAY HENSLEY, Ph.D. ..... Assistant Professor of Economics
JEAN LETCH, Ph.D. ..... Professor of Education
DERIL K. MAYS, Ed.D. ..... Professor of Psychology
ETHEL M. STARK, B.S. ..... Graduate Student Representative
BETTY S. STROUD, Ed.D. ..... Professor of Music
ROBERT W. SWANSON, Ed.D. ..... Associate Professor of Environmental Science
JOHN C. TAYLOR, J.D., Ph.D. ..... Associate Professor of History
DORIS B. THOMPSON, Ph.D. ..... Assistant Professor of Education
PAUL S. MOORE, Ed.D., Ex Officio ..... Acting Vice President for Academic Affairs
JACK C. PHILLIPS, LL.D., Ex Officio ..... President of the College

Faculty Elected to Teach Graduate Courses

DIANNE R. FERRIS, *Professor of English; Chairman, Division of Humanities* - B.A. University of Minnesota; M.A., Ph.D., University of Washington.

JAN M. FINKEL, *Professor of English* - A.B., Wittenberg University; M.A., Ph.D., Indiana University.

ARTHUR H. HAFNER, *Professor of Education* - Ph.B., Muhlenberg College; M.A., Lehigh University; Ed.D., Teachers College, Columbia University.

ELLA KAY HENSLEY, *Assistant Professor of Economics* - B.A., M.A., M.A.M.R.D., Ph.D., University of Florida.

NAZIR A. KHATRI, *Associate Professor of Chemistry* - B.S., M.S., University of Karachi; Ph.D., University of Nebraska.

JEAN LETCH, *Professor of Education; Head, Department of Education* - B.A., Iowa State Teachers College; M.A., Ed.S., University of Northern Iowa; Ph.D., University of Iowa.

DERIL K. MAYS, *Professor of Psychology* - B.S., Union College; M.A., University of Kentucky; Ed.D., University of Tennessee.

JOHN H. McGRIFF, *Assistant Professor of Political Science* - B.S., M.A., Ph.D., Ohio State University.

PAUL S. MOORE, *Professor of Health and Physical Education; Acting Vice President for Academic Affairs* - A.B., Union College; M.S., University of Tennessee; Ed.D., University of Alabama.

REBECCA A. PETTYS, *Associate Professor of Drama and Speech* - B.A., Berea College; M.A., Northwestern University; Ph.D., Indiana University.

ROBERT V. PETTYS, *Associate Professor of Business Administration* - B.A., M.A., Michigan State University; M.B.A., Ed.D., Indiana University.

H. WARREN ROBBINS, *Professor of Education; Dean of Graduate Academic Affairs* -

B.S., Eastern Kentucky University; M.A., George Peabody College; Ed.D., University of Tennessee.

RONALD B. ROSEN, *Associate Professor of Biology* - B.A., Hendrix College; M.S., Colorado State University; Ph.D., University of Manitoba.

C. RONALD ROSENSTIEL, *Associate Professor of Sociology* - B.A., M.S., M.A., Ph.D., University of Kentucky.

BETTY S. STROUD, *Professor of Music; Head, Department of Music and Fine Arts* - B.S., Northeast Louisiana State University; M.M., Louisiana State University; Ed.D., University of Illinois.

ROBERT W. SWANSON, *Associate Professor of Environmental Science* - B.S., Purdu University; M.S., Indiana University North west; Ed.D., Indiana University.

JOHN C. TAYLOR, *Associate Professor o History* - B.A., Juniata College; J.D., Duk University; M.A., Ph.D., Pennsylvania Stat University.

DORIS B. THOMPSON, *Assistant Professo of Education* - B.S., Livingston University M.A., Ph.D., University of Alabama.

ANDELYS WOOD, *Professor of English* A.B., Middlebury College; Ph.D., Indian University.

LESTER G. WOODY, *Professor Emeritus o English* - B.A., University of Virginia; M.A University of Richmond; Ph.D., Universit of North Carolina.

Adjunct Faculty Approved to Teach Graduate Courses

AUDREY D. BARKMAN, B.A., University of Kentucky; M.A., Ph.D., Arizona State University.

ROBERT L. GATTON, A.B., M.A. in Ed., Union College; Ed.D., University of Florida.

DWIGHT C. HENN, B.S., Manchester College; M.Ed., Wittenberg University; Ed.D., University of Cincinnati.

JOYCE S. HOPSON, B.S., Lincoln Memorial University; M.A., Union College; Ed.D., University of Tennessee.

WILLIAM J. KENNEY, B.A., Mars Hill College; M.A., Old Dominion University; Ph.D., University of Tennessee.

DAVID B. PETERSON, B.A., Tusculum College; M.A., Ed.D., East Tennessee State University.

MARSHALL E. RASNAKE, B.S., Ed.S., University of Tennessee; M.A., Teachers College, Columbia University; Ed.D., Memphis State University.

JEAN L. SHELTON, A.B., M.A., University of Louisville; Ph.D., University of Texas.

JAMES F. SIMPSON, B.S., Cumberland College; M.A., University of Tennessee; Ph.D., Vanderbilt University.

MURRELL P. STEWART, B.S., M.A., Eastern Kentucky University; Ed.D., University of Kentucky.

WARREN P. TILLER, B.S., Pikeville College M.A., Union College; Ed.S., Morehead Stat University; Ed.D., East Tennessee Stat University.

GLEN A. TILLEY, B.S.M.E., M.A., Ed.S., Ed.D East Tennessee State University.

WILLIAM C. WESLEY, A.B., M.A., Easter Kentucky State University; Ed.D., Universit of South Dakota.

JOHN E. YATROS, B.S., Concord College Virginia; M.A., West Virginia University; Ed.D Indiana University.

GRADUATE ADVISORY COUNCIL

KENDALL BOGGS	Superintendent of Schools, Retired
JOHN H. BOYD	Professor Emeritus of Education and Former Dean, Union College
EUGENE BURNETT	Elementary School Principal
TED CORDER	Elementary School Principal
JAMES M. DAVIS	Superintendent of Schools
ANDY DUNN	High School Principal
STEVE EVANS	Certified Public Accountant
MARY PAULINE FOX	Physician, County Health Officer
ROBERT GATTON	Director, Public School Dropout Prevention Program
VIRGINIA GREEN	Director, County Public Library System
BENNY HAMBY	Director of Transportation, County School District
JAMES HARVE HAMPTON	Superintendent of Schools
PAUL HANSEL	Elementary School Assistant Principal
DWIGHT HENN	Superintendent of Schools
DWIGHT HENDRIX	Coal Operator
ELLA KAY HENSLEY	Assistant Professor of Economics
SPRINGER HOSKINS	Former Newspaper Publisher
JUDITH HOUNSHELL	Public School Librarian
CHAD JACKSON	Comprehensive Care Center Consultant
NORRIS KECK	Assistant Superintendent for Instruction
JEANETTE LADENBURGER	Supervisor of Instruction
PEARL R. LEFEVERS	High School Principal; State Representative
GEORGIA LLOYD	Elementary School Teacher
LOUIE MARTIN	Superintendent of Schools
ALLIE MAYS	Instructional Supervisor, Retired
BRENDA McCLURE	Elementary School Teacher
WENDAL MITCHELL	Middle School Principal
BETTYE MOODY	School District Finance Officer
MARSHALL RASNAKE	High School Mathematics Teacher
MILDRED ROWLAND	Superintendent of Schools, Retired
OMUS SHEPHERD	High School Principal
ASTOR SIMPSON	Health Plan Director
WILLIE SIZEMORE	Superintendent of Schools
MURRELL STEWART	Superintendent of Schools, Retired
JOAN STIVERS	College Dean
JESSE TAYLOR	School District Director of Transportation
GRACE TOLLLIVER	School District Chapter I Director
PAT WEAR	Professor Emeritus of Education, Berea College
ALMA FAYE WEBB	Supervisor of Exceptional Children

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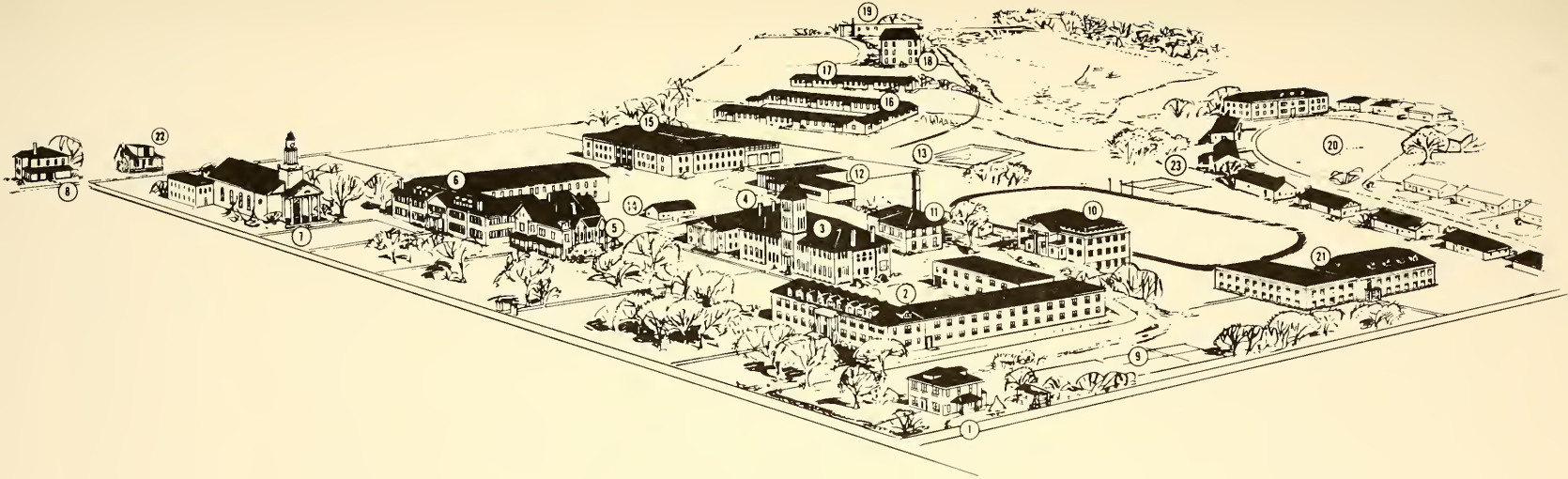
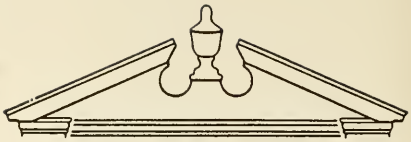


1. Baldwin Place, President's Residence
2. Stevenson Hall, Men's Residence
3. Centennial Hall
4. Library
5. Speed Hall, Administration Building
6. Pfeiffer Hall, Women's Residence
7. Conway Boatman Chapel—Fine Arts Building
8. Tye House
9. Tennis Courts
10. Dramatic Arts Center
11. Data Processing
12. Student Center
13. Colonel Sanders Field
14. Religious Life Center
15. Physical Education Building and Swimming Pool
16. College Courts, Married Students' Apartments
17. College Courts Addition
18. Lakeside Hall
19. Bureau of Mines Education Center
20. College Park, Faculty Housing
21. Mahlon Miller Science Center
22. Manchester Street Building
23. Tennis Courts



UNION COLLEGE

Barbourville
Kentucky 40906
(606) 546-4151

UNION COLLEGE
IN KENTUCKY

1989-1990 CATALOG

UNION COLLEGE CATALOG

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DIRECTORY FOR CORRESPONDENCE

Academic Program and Advisement ..... Vice President for Academic Affair
Admissions Information ..... Director of Admission
Admission to Graduate Program ..... Dean of Graduate Academic Affair
Alumni Affairs ..... Director of Alumni Affair
Charges and Payment of Bills ..... Business Manage
Gifts and Bequests ..... Vice President for Developmen
Personal Welfare, Health of Students, Housing ..... Dean of Student
Grants, Scholarships, Work-study and Loans ..... Director of Financial Ai
Transcripts, Academic Records, Veterans Affairs ..... Registra

TELEPHONE COMMUNICATION

A campuswide network of telephones enables the caller to reach any administrative or staff offic by dialing the central switchboard. After 11 p.m., emergency calls for students may be directed t their dormitory counselors.

Central Switchboard ..... **(606) 546-4151**
Counselor, Pfeiffer Hall ..... (606) 546-3421
Counselor, Stevenson Hall ..... (606) 546-3659

Union College is accredited by the Commission on Colleges of the Southern Association of College and Schools, the Kentucky State Department of Education, and is approved by the University Senat of the United Methodist Church.

It is the policy of Union College not to discriminate on the basis of sex, race, color, handicap, age or national or ethnic origin in the admission of students, in its administration of educationa programs, scholarships, loan programs, or other school-administered programs, or in athleti participation. Inquiries should be directed to Mr. Edward H. Black, Affirmative Action Officer.

While this catalog presents information as accurately as possible as of the date of publication, th College reserves the right to make such changes as future circumstances may require.

)R. JACK C. PHILLIPS

Welcome To Union College

We welcome and invite you to examine Jnion College. Founded in 1879 by Barbourville citizens and purchased in 1886 by the Methodist Church, Union has as its chief mission, service to the Appalachian area of Southeastern Kentucky, Eastern Tennessee, and Southwestern Virginia.

With an enrollment of more than 1,000 students,including both graduate and undergraduate persons, Union College is committed to academic excellence. The College offers the Bachelor of Arts, the Bachelor of Science, the Bachelor of Music, and the Master of Arts in Education degrees. It also offers a Rank I Program beyond the Master's level as well as various associate-degree and certificate programs.

Located on the historic Wilderness Road, Jnion is the first College in this tri-state area. There are now over 8,000 graduates with over 3,000 having the Master of Arts in Education Degree.

We are proud of our tradition and are pleased that you are interested in our undergraduate program. As you peruse these pages, hopefully you will like what you see. Should you wish to enter our College, we believe your experience will be a profitable and happy one.

Sincerely,

Jack C. Phillips

Jack C. Phillips
President

A History of Service

Union College was founded in 1879 by a group of progressive citizens of Barbourville who formed a stock company and secured the main part of the present campus. In 1880, the first building was formally opened on the site of what is now known as Centennial Hall.

The College was purchased by the Kentucky Conference of the Methodist Episcopal Church in 1886, and Daniel Stevenson was made president of the reorganized institution. A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hall, and the Classroom Building (now known as Centennial Hall).

The college department was discontinued in 1908, and for eight years the institution was maintained as a Junior College, an academy, and an elementary school. It became a *bona fide* College again in the presidency of Ezra T. Franklin, who inaugurated a program of development during which the Memorial Gymnasium and a home for the president was built. In 1927, the College was accredited by the University of Kentucky as a four-year college of A grade.

President John O. Gross emphasized the improvement of the curriculum and the building of a strong faculty. In 1931, Union was accredited by the University Senate of the Methodist Episcopal Church, and in 1932, full accreditation was realized when it was made a member of the Southern Association of Colleges and Schools. The Board of Regents of the University of the State of New York placed Union College on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the College achieved marked progress in both its educational programs and in plant improvement. Seven new buildings were completed and others were enlarged. The curriculum was expanded, endowment funds were increased, and a markedly improved program of faculty salaries and benefits was adopted.

Mahlon A. Miller was elected to the pre dency in 1959. In 1960, a Master of Arts Education degree program was introduce and plant expansion continued with the d velopment of College Park, a faculty resident area, followed by the construction of additior student housing, a physical education buil ing, a student center, and a science cente completed in 1973.

President Jack Carter Phillips began his d ties at Union College in January, 1983.

Dr. Phillips earned the Bachelor's Degree Birmingham-Southern College and the Mast of Divinity Degree at Vanderbilt University. H received an honorary Doctor of Laws Degr from Union College in 1981. He was lauded that ceremony for "notable achievement in th field of institutional fund raising and, in pa ticular, service to the colleges and universitie related to the United Methodist Church."

A native of Scottsboro, Alabama, Dr. Phillip served in the U.S. Marine Corp from 1954 1957.

Under Dr. Phillips' leadership the college ha experienced significant enrollment increase every year. A new 37,000 square foot libra addition with computer facilities and a moder well equipped learning resource center opene in 1987.

The College has always accepted a speci mission to Appalachia, a commitment which now being strengthened with unique academ programs based on regional characteristics, e panded student financial aid, student con munity-service projects, and new caree oriented curricula.

The doors of Union College are open to a who aspire to a more fulfilling life, witho regard to race, color, sex, handicap, nation or ethnic origin.

Interested and prospective students are en couraged to arrange a visit to the campus b calling the Admissions Office (606-546-4151).

STATEMENT OF PURPOSE
(Mission Statement)

nion College is an independent liberal arts stitution of higher education, affiliated with e United Methodist Church. It is dedicated maintaining an academic and community ıvironment that stimulates intellectual curi-ity and scholastic competence, encourages ı understanding of and commitment to the hristian faith, and promotes the development values. Students are admitted to Union Col-ge without regard to race, color, creed, age, x, or physical handicap.

Union College is committed to providing stu-ents with the resources necessary for a quality ducation. The faculty is characterized by ound scholarship and a deep concern for the eeds of students. Faculty advisors assist each udent to develop career goals and to select ademic courses of study appropriate to these oals. Most classes are small, many types of ducational experiences are provided, and ac-demic, career and personal counseling are vailable. Students have access to a wide va-ety of scholarly and technical resources for eir education.

The academic program is designed to meet e College's mission of providing its students ith the opportunity to increase their general nowledge and understanding of the world ound them and to obtain the skills necessary compete in the job market. The basic un-ergraduate liberal arts curriculum makes vailable to students a large body of knowledge rawn from the humanities, natural sciences, nd social sciences. Union offers develop-ental and remedial programs in basic skills. lajors and areas of study prepare the student r a variety of careers and professional or grad-uate study. Plans of study in pre-professional, technical and skills-oriented fields enhance post-graduate employment opportunities. In addition, Union offers graduate programs in Education and associate degrees in various fields. These latter programs are offered to meet regional needs. A number of courses in both the undergraduate and graduate programs are taught off-campus in various communities within the primary service area of the College. Finally, the College also has credit and non-credit continuing education courses for the community.

Central Appalachia is Union's primary service area and home to the majority of the College's students. Union affirms a special concern for improving the quality of life in Appalachia and the College strives to serve the region in a number of ways. Technical and skills-oriented plans of study are designed to improve the human resources of the region. The undergraduate and graduate Education programs help meet the personnel needs of the public school system. In order to educate people about Appalachian life, traditions, and problems, Union offers Appalachian studies aimed both at local students and visiting students from other institutions. To further its mission of helping the community, a number of programs are made available to area residents, including the educationally disadvantaged. Many College staff members also participate in community service. Finally, Union trains students for service-oriented professions in this region, including teaching and the ministry, and serves as a cultural center for the community.

GOALS FOR GENERAL EDUCATION

A. COMMUNICATIONS SKILLS

A primary goal of Union College's academic program is to help students develop and improve their communications skills. This includes both *expression* (the ability to convey information and ideas to others) and *comprehension* (the ability to receive and understand information and ideas conveyed by others). An acceptable level of *expression* includes the ability to write and speak in a clear and cogent fashion, while *comprehension* requires the ability to read college level material, listen to lectures and retain and understand the content of the material presented. Therefore, a Union Student should, by graduation, be able to:

1. write a clear and cogent essay based on his or her own ideas which obeys the basic rules of grammar, spelling, and punctuation;
2. prepare and deliver a logical and organized oral presentation;
3. read and integrate information into previously acquired knowledge; and
4. listen to a lecture or presentation and recall and understand the major points.

B. ETHICS AND VALUES

As an institution related to the United Methodist Church and one fostering Christian values, Union College does attempt to develop ethical standards as an important part of any student's education. Students should learn to think about and discuss values and ethics and become aware of the major religious and ethical perspectives of humankind. The College encourages an awareness of the Christian faith and believes that students should develop a tolerance toward the viewpoints of others. Upon graduation, the Union student should be:

1. familiar with today's major religious and ethical ideals, and how they developed;
2. tolerant toward and respectful of these different views and ideals; and
3. able to think about and articulate problems and issues related to ethics and values.

C. GENERAL KNOWLEDGE

No education is complete without the acquisition of a solid base of general knowledge. Without such knowledge, the student will not be capable of developing his or her thin and reasoning abilities. With this knowle students will have a storehouse of informa that will help them more effectively to change ideas, thoughts, and feelings with ers. The constant expansion of and chan the corpus of information means that it w be futile to attempt to define precisely long-term basis what a student should k Nevertheless, there are certain areas which the student should be familiar, at in general terms. By graduation, the Unio dent should have:

1. an ongoing interest in and appreci for music, literature, and the arts, an traditions on which these fields founded;
2. an informed acquaintance with the ral and social sciences and techno and a general awareness of their co uing impact and development thr the ages; and
3. acquired reasonable mathematical quantitative skills.

D. CRITICAL THINKING AND PROBL SOLVING

The ability to think critically and to ana and solve problems is an absolutely esse skill. In an increasingly complex world acterized by a constantly expanding flo information, it becomes more and more essary for educated persons in every fie be able to arrive at responsible and consid decisions. A college graduate who lacks t abilities is unlikely to succeed in any are endeavor. Thinking and analysis develop many years and cannot become fully d oped during an undergraduate career. U desires that its students make progress in direction, however, by developing or imp ing upon their ability to:

1. understand abstract ideas;
2. analyze problems that involve com sets of facts and relationships; and
3. think and reason in a critical, logical, objective fashion.

E. CONTEXT

Understanding the modern world dep upon an adequate comprehension of the fo that continue to shape societies. There

any different interpretations of and explations for the current world situation, and udents are free—and encouraged—to delop their own opinions. During the college ars, students have the opportunity to learn out the context of modern civilization—its tecedents and structure. By the completion their undergraduate program, students ould have:

1. increased their understanding of how the modern world works, including its peoples' increasing interdependence;
2. acquired a basic knowledge and appreciation of other cultures; and
3. developed an interest in, and comprehension of, current events and their history.

LEARNING SKILLS AND PERSONAL DEVELOPMENT

The development of learning skills and pernal development are important goals of all ograms at Union College. In addition, urses are offered which are specifically designed to develop learning skills where these are lacking, assisting students to"learn how to learn". Students are also expected to become familiar with ways in which the library supports and complements a liberal arts education and how libraries can serve them throughout their lives. All students are offered the opportunity to use computers to assist their educational experience and to learn how the computer can be useful to them personally.

Commitment to the goal of personal development is evidenced at Union College by the requirement that all students extensively experience the liberal arts. Of special importance is Union's mission to serve the Appalachian people by making a liberal arts education available to the community. Students graduating from such a program will have developed a degree of confidence in their ability and will be prepared to go on in life with the expectation of success in a chosen endeavor. Appalachian students will also develop an increased appreciation of their own culture, place, and importance in the world.

A STATEMENT OF VALUES

Union College is dedicated to preparing students for living informed, socially useful, personally fulfilling, and spiritually vital lives. This commitment involves using knowledge within a context of Christian values. Although it is recognized that as an educational institution Union College has an obligation to help students understand other value systems and their effects when translated into specific areas of human activity, as a United Methodist Church-related college Union affirms an institutional stance based on Christian values such as have evolved in the Judeo-Christian tradition and are contained in the Old and New Testaments. Our intent is both to confess and to practice the christian faith in all our endeavors.

IMPLICIT IN THIS STATEMENT OF VALUES IS THE REQUIREMENT THAT UNION COLLEGE COMMIT ITSELF TO THE VALUES ENUNCIATED BY ASSURING TO THE MAXIMUM EXTENT POSSIBLE:

To Its Students

(1) the fullest of opportunities to receive a quality liberal arts education.

(2) strong attention to, and genuine concern for, each individual in the college community, including emphasis upon the unique value of each person.

(3) a continuing concern that they learn to appreciate and accept life styles that reflect integrity, honesty, compassion, and social responsibility.

(4) a commitment to provide the experiences necessary to acquire a meaningful understanding of and dedication to Christian love and service to both God and neighbor.

To Its Faculty and Staff

(1) a campus atmosphere of responsible academic freedom dedicated to the constant search for truth.

(2) an academic community dedicated to openness and acceptance of its pluralistic composition, including personnel policies and practices that are recognized without regard to race, creed, sex, color, physical handicap, or national origin.

(3) a constant reminder of the power of Christian example.

To Its Alumni, Benefactors, and the Parents of Its Students

(1) faithful and responsible stewardship of all funds and gifts entrusted to the College.

(2) continuance of meaningful traditions, particularly those unique to a church-related institution, while at the same time encouraging the exploration and implementation of new value-centered activities especially of the type that have strong Christian relationship.

(3) continuing appreciation for the rich heritage of Union College as an independent, one-sectarian, church-related institution in the Christian tradition.

To The United Methodist Church

(1) acceptance of Jesus Christ as God's revelation of Himself, and of the Holy Spirit as God's continuing presence in life.

(2) acceptance of the moral standards which have evolved in the Judeo-Christian tradition as our ideals for living, working and witnessing in an academic community and as the standards for our teachings and personal example.

(3) sensitivity to and a conscientious effort directed toward the satisfaction of the spiritual needs and concerns of the college's students, faculty, and staff.

(4) meaningful responsiveness to and support for the United Methodist Church.

To Barbourville, Knox County, and the Appalachian Area

(1) continuing appreciation that Union College is an integral, social, educational, and spiritual part of the Barbourville and Knox County communities, and of Appalachia.

(2) dedication of the college's resources in teaching, research, and service to the enrichment of the communities of which Union College is a vital part.

(3) a commitment of the personal resources represented by the college's students, staff and faculty to local churches of the immediate and larger community.

ADMISSIONS AND GENERAL INFORMATION

ADMISSION REQUIREMENTS

The minimum requirements for admission as a regular student at Union College are: A high school diploma from an accredited high school, or a high school equivalency certificate based on the GED tests, and acceptable ACT or SAT scores.

The high school transcript should include 3 units of English, 2 of Mathematics, 2 of Social Studies, and 2 of Science. A foreign language is recommended.

Applicants who have previously attended college must have official college transcripts sent to Union. All college work will be considered when an admission decision is made.

The College will decide on the admission of a student within one week of the receipt of all pertinent material: high school and/or college transcripts, and ACT or SAT scores.

Procedures For Admission

Application for Admission

The application for admission is available from the Admissions Office, Union College, Barbourville, KY 40906. An application fee of $5.00 should accompany each application for admission to the College.

Enrollment Deposit

After official notification of acceptance to the Fall semester, all new students are required to submit a $25.00 enrollment deposit which is applied to tuition. This deposit is refundable until August 1. If you are applying for Financial Aid your deadline is extended until you have been notified of your award. At the time of acceptance of your financial aid award you have two weeks to submit your enrollment deposit.

Secondary School Transcript

Each applicant must authorize the release of his or her transcript by signing the application form. The Admissions Office will write to the applicant's high school for an official copy of the transcript.

Entrance Tests

All candidates are required to take the American College Test (ACT) or the Scholastic Aptitude Test (SAT). Applicants should have the results forwarded to Union College. The Union College institution number is 1552 for the ACT and 1825 for the SAT.

A test application blank and bulletin of information may be obtained from the secondary school guidance office or from Union's Admissions Office.

Union College will record a summary of transfer credits, indicating the total number of hours accepted and the quality point average at the sending institution. Union accepts only transfer work in courses with a grade of "C" or above. This policy applies only to credits transferred on a course-by-course basis, not to junior college students who transfer entire degree programs.

Summer Orientation

A one-day Summer Orientation program is required for all students who are entering Union College for the first time.

The program includes placement testing, academic advising, advance registration, and financial counseling and is designed to help students make a successful transition to college.

Admissions Information for Other Programs

High School Junior Program

A student who has completed the junior year of high school may qualify for the High School Junior Program. The student must have a "B" average and must pass ALL sections of the Placement Test given by the College to be admitted to the program. Students who have a composite of 20 or above on the ACT are exempt from taking the Placement Tests. Two letters of recommendation are required. The student may then enroll for 6 hours or less in any one term for one-half the established summer rate. This scholarship terminates when the student graduates from high school.

GED Acceptance

An applicant may be admitted on a high school equivalency certificate based on the General Education Development Tests, provided that the scores earned are equal to or above the minimum recommended for college entrance by the American Council on Education.

Advanced Placement

Students who have successfully passed one or more of the Advanced Placement tests of the College Entrance Examination Board may ask

or advanced placement and credit when they ubmit their application. The Office of the Registrar will decide on the amount of credit to e granted and the college course that may be mitted. Scores of 3, 4, or 5 are required for uch action.

arly Start Senior Summer Program

A high-school graduate who has not attended college since graduation may be eligible or the Early Start Senior Summer Program. To ualify a student must meet admission standards required of all students, must graduate n the upper 50% of his or her class, and must ave a minimum ACT English score of 16 or AT Verbal of 410.

Accepted students who enroll for courses in ither summer session will be provided a scholrship for one-half of the tuition charges. If the tudent enrolls for and completes twelve hours uring the summer sessions, there will be no oom charge to live on campus. All students nust pay a $50.00 refundable room deposit.

Students who enroll in and complete twelve ours of college credit with a grade point avrage of 3.0 ("B" average) will receive a $250.00 cholarship as a full time student in the fall. If ne 3.0 average is maintained in the fall, the tudent will receive another $250 scholarship n the spring. After the spring semester, the cholarship terminates.

\dmission of Adult Students

Students 25 or older are not required to furish ACT or SAT scores. Applicants who lack ne GED are urged to contact Union's Adult ducation office for assistance.

\dmission of International Students

Foreign students must complete the regular dmission process (ACT or SAT is not required f foreign students). A non-refundable appliation fee of $25.00 should accompany each pplication for admission to the College. After he student is accepted, the College must reeive payment for the student's first semester osts for tuition, room and board, and fees. 'his payment must be received at least one nonth before the beginning of the semester. 'he student will not be allowed to move into the dormitory or register for classes until payment is completed.

In order to be considered for admission, a foreign student must show English proficiency with a minimum score of 500 on the Test of English as a Foreign Language (TOEFL), or 107 on the ELS English Proficiency, or 70 on the Michigan English Placement Test.

When the admission process is completed, a foreign student is obligated to stay at Union for at least one year. No official transcript or recommendation will be released until the student fulfills the year's obligation. If a student leaves before one year, he must be reported to the Immigration and Naturalization Service. One year is interpreted as two full semesters, excluding summer sessions.

The student must pursue a full course of study. Those who drop to part-time status must by law be reported to the Immigration and Naturalization Service. No visas and/or passports will be renewed until the student's account is paid in full.

Transfer and Advanced Standing

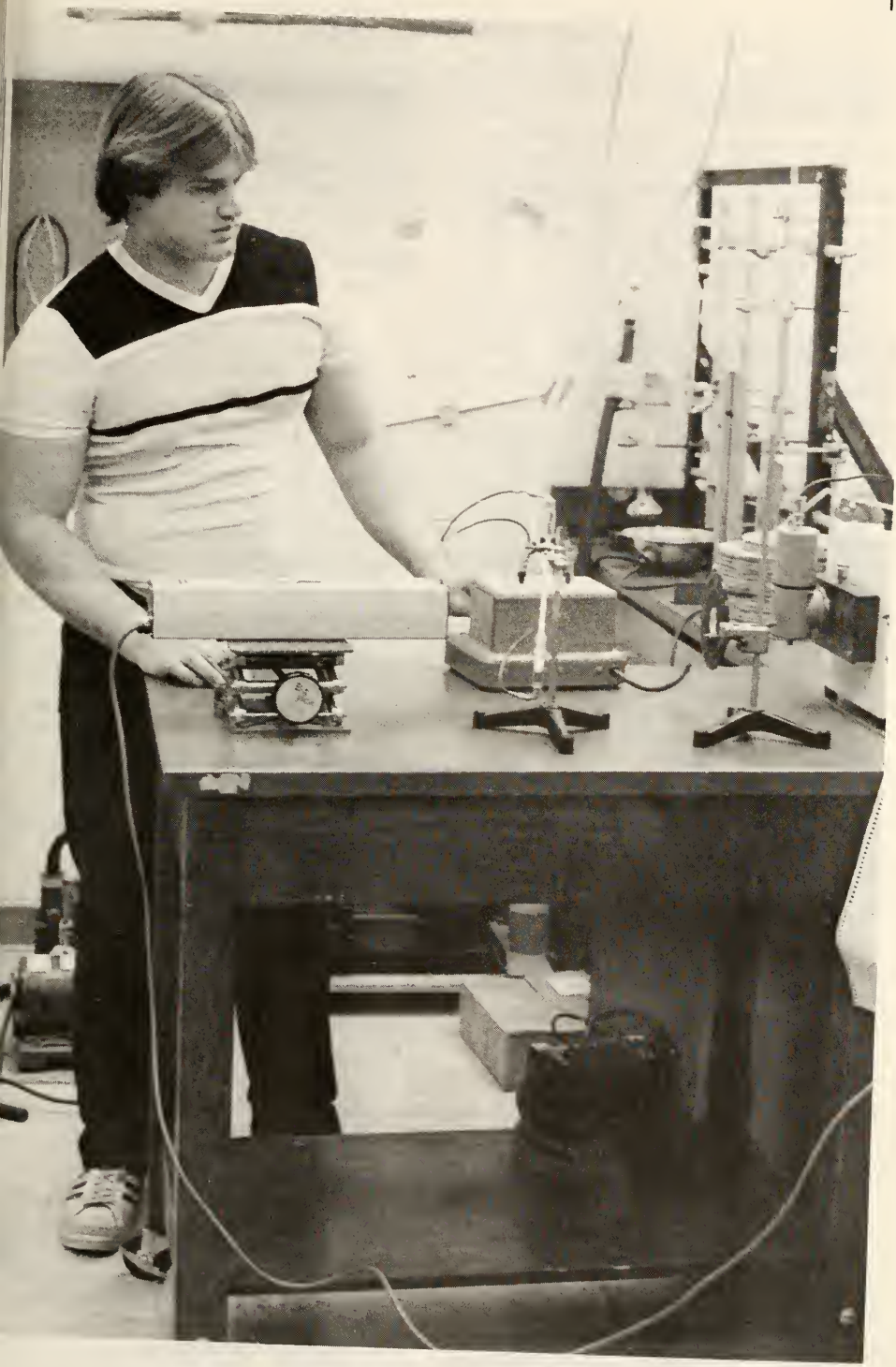
Students transferring at least 30 hours of credit are excused from entrance test requirements.

Credits earned from an accredited community college, junior college, senior college, or university can be transferred to Union College. Sixty-seven semester hours is the maximum amount of junior college or community college credit which may be counted toward a degree.

Transfer credits will be accepted at the level of the initiating institution. In case of an appeal for upper division credit when the course was taken at a junior college (or as lower division work at a senior college), a committee consisting of the Registrar, the division chairperson of the area involving the course, and an appointed faculty member from that discipline will review the content, text, level of work, etc., to determine if the upper division credit should be granted.

Students transferring from a two-year institution should make special note of the forty hour graduation requirement of 300 and 400 level courses.

CONWAY BOATMAN CHAPEL



FINANCIAL AID & FEES

TUITION AND FEES

College Expenses

The academic year is divided into two regular semesters, Fall and Spring. In addition, a special May Interim and two special summer sessions are offered, convening in the months of May, June and July respectively. Applicable tuition and fees are as follows.

Undergraduate Expenses (per regular semester)

Tuition (12 to 17 semester hours) and Activity Fee	$2,485.00
Room and Board* (19-meal week)	$1,160.00
Private Room (Additional)	$ 105.00
Total for Boarding Student —Regular Room	$3,645.00
—Private Room	$3,750.00
Part-time tuition for registering less than 12 or more than 17 semester hours, per semester hour	$ 120.00

(Undergraduate students over age of 50 pay 50% of the established tuition rate.)

Graduate Expenses

Full-time tuition (12 to 17 semester hours)	$2,460.00
Part-time tuition (per semester hour)	$ 120.00
Activity Fee (boarding students only)	$ 25.00

Summer Session Expenses 1989

Tuition, Undergraduate (per semester hour)	$ 120.00
Tuition, Graduate (per semester hour)	$ 120.00
Room and Board (19 meals per week) each term, 5 weeks**	$ 360.00
Room and Board (Sunday dinner through Friday lunch — 15 meals per week) each term**	$ 305.00
Private Room, each term (additional)	$ 30.00

May Interim Term Expenses 1990

Tuition, Undergraduate (per semester hour)	$ 120.00
Tuition, Graduate (per semester hour)	$ 120.00
Room and Board (19 meals per week)	$ 220.00

Note: May Interim tuition may be waived for a full time student who carries 14 semester hours or less in the preceding spring semester.

Other Expenses

The fees listed below are not a part of the traditional tuition and board and room charges.

Audit Fee (per semester hour)	$ 15.00
Late registration fee***	$ 15.00
CLEP (per test)	$ 35.00
CLEP Credit Recording fee (per course equivalent for Advanced Tests only)	$ 25.00
Portfolio Fee (per semester hour)	$ 30.00
Contract Course (per semester hour)	$ 25.00
Examinations: late final examination fee	$ 15.00
credit by examination (Institutional) (per credit hour)	$ 25.00
Graduation Fees: Associate degree or Diploma	$ 25.00
Bachelor's degree	$ 30.00
In absentia	$ 25.00
Music Lessons: Part-time and Special Students (per semester hour)	$ 80.00
Applied Music (per semester hour)	$ 65.00
Private Lesson (Continuing Education) (per semester hour)	Varies
Transcript-after first copy (one week's notice required)	$ 3.00
Student Teaching Fee	$ 100.00
Special Lab or Studio Course	$ 25.00
College Court Rental, per month (all utilities furnished)	$ 150.00

*Vacation periods are not included in the above quotations. Dormitories and food service are closed during vacations and

ther periods as noted in the undergraduate calendar. The College reserves the right to entertain delegates to conventions nd other related groups in the residence halls during vacation eriods. Students will be notified in advance of such contemlated occasions and assurance given regarding the safeguardng of their personal property during such occupancy.
*All board charges are subject to change without notice, pendng contract agreement with the food service.
**Late registration fee can be waived by the Registrar for sufcient reason if permission is requested in advance.
xpenses for May and Summer Sessions are effective June 1, 989.
uition, Fees and other expenses are subject to change. All harges will be announced in the class schedule or through ne media.

PAYMENT POLICY

I. Financial Clearance

A student will be cleared for registration only any previous balance has been paid. The new emester's account must then be paid in full, r a signed payment plan and first installment ompleted. Summer school and short sessions ust be paid in full at the date of registration – no payment plan is permitted for summer r short sessions.

Authorized financial aid will be credited to ne student's account and a payment plan set p for the balance. In case the financial aid is nticipated but not yet authorized, the student ust pay as a first installment one third of the otal costs.

A student having any unpaid balance will ot be cleared for the release of an official eport of grades, a transcript of credits, or a iploma.

II. Finance Charge

A monthly finance charge of one and a half ercent (19.5% annual rate) will be added to ne unpaid balance on all student accounts at oon on the last working day of each month.

III. Payment Plan

If the new semester's account cannot be paid efore registration, a payment plan can be comleted and a first installment paid down. The ayment plan requires one-third payment on ach of the following dates after which the stuent may be withdrawn from courses if the ccount is not paid up:

1. On or before fall semester or spring semester registration — one-third.
2. Due October 5th (fall semester) or February 5th (spring semester) — one-third.
3. Due November 5th (fall semester) or March 5th (spring semester) — one-third + 1½% finance charge on the balance.

Any student who owes a balance on his or her account after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

REFUND INFORMATION

Since faculty contracts and other commitments are made by the college for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

1. A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.
2. A full refund may be obtained for a class only if a student has not attended beyond the first session and completes drop/withdrawal procedures with the Office of the Registrar.
3. Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.
4. Tuition and room charges will be refunded on the following basis:

   Regular Semester — Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week. Refund is based on the tuition charges less $10 student center allocation, $1 class dues, $1 student senate fee, $3 for I.D. card, and $25 activity fee.

   Summer and Short Terms — Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.
5. **Refund of Overpayment on Student Account** — If a student makes an overpayment on his or her account, a written

request for refund must be submitted to the Business Office within one year after the end of the last academic term for which the student was enrolled.

6. **Room Reservation Deposit** — This deposit will be refunded if the request is made in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor no longer enrolled as a student at Uni College and that he or she has left t housing facility undamaged and does n owe other bills. The request for this a thorization must be made within one ye after the end of the academic term f which the student was enrolled.

7. **Enrollment Deposit** — $15.00 will be r funded upon receipt of written reque prior to August 1 for the fall semester 30 days before the first day of class for a other academic session. Refund reque should be submitted to the Admissio Office.

FINANCIAL ASSISTANCE

Student expenses. In planning to attend Union College a student should expect the following typical expenses for an academic year; tuition and general fees $4,970, room $660, board $1,660, books and supplies $400. In addition, allowance should be added to these figures for personal expenses, medical insurance, transportation, and extra charges for special courses (such as laboratory fees, etc.). The Office of Student Financial Aid will consider the total costs for attendance, including the items listed above, when making a financial aid commitment.

Purpose of financial aid program. In addition to its own scholarship funds, Union College participates in all federal programs including the Pell Grant program. Residents of Kentucky are also eligible to receive state tuition grants and loans. Information on Union College scholarships will be found on the following pages.

Students applying for financial aid are considered for all programs for which they are eligible. The amount of financial aid awarded is generally a combination of grant, loan, and employment, and is based on the financial need of the student. Need is determined by subtracting the resources of the student and the contribution of his or her parents from the total student expenses. The parents' contribution is estimated on the basis of the amount of their income and assets as well as a consideration of taxes, medical expenses, and other liabilities of the family. An independent, objective, nationally recognized method of analysis developed by the College Scholarship Service is used to evaluate the family's financial circumstances. All financial aid awards to students are determined by Union College's Office of Student Financial Aid.

Procedures for applying for financial aid. Students must apply for financial aid by submitting a Financial Aid Form (FAF) to the College Scholarship Service. Students applying by March 15 will have a greater opportunity. However, financial aid will still be available after this date.The FAF is used to apply for the Pell Grant, the Kentucky Tuition Grant, the Supplemental Educational Opportunity Grant (SEOG), College Work-Study, Perkins Loan (formerly National Direct Student Loan) and any institutional funds.The FAF may be obtained from a high-school guidance office or the Office of Student Financial Aid. Students should specify 1825 as the code number for Union College in the appropriate section of the FAF.

A Financial Aid Notification along with information about any aid offered will be sent from Union College to each student who applies.

Procedures for reapplying for financial aid. A student must reapply for financial aid each academic year. However, aid usually continues at the same level each year unless a student's resources or the expected contribution of his or her parents change. All enrolled students receiving aid automatically receive information about applying for renewal awards. Other enrolled students should request applications by February 15.

In order to continue to receive financial aid, a student must be making satisfactory progress toward his or her degree. A student may be said to be making satisfactory progress during the first semester on academic probation. However, he or she is not considered to be making satisfactory progress should he or she continue on academic probation for a second consecutive semester, or fail to complete 50% of the credit hours for which he or she enrolls in any one semester. The maximum number of semesters for which financial aid may be received is ten.

The Tax Reform Act of 1986 has changed the regulations governing the taxation of scholarships, fellowships, Pell Grants, athletic grants-in-aid and other grants received by the student. Students are responsible for determining what part of their financial assistance is taxable. This can be done by subtracting allowable expenses (tuition, fees, and required books, supplies, and equipment) from the sum of scholarships, fellowships and grants. The amount of these awards in excess of allowable expenses is to be reported as taxable income. Loans, including the subsidized portion of government loans *are not* considered income for tax purposes.

Grants

Pell Grant — A program providing direct grants from the federal government. The student receives an eligibility report (as a result of his or her Financial Aid Form application) which can be submitted to Union College for payment. It is expected that the maximum amount for the Pell Grant for 1989-90 will be $2,300.

Supplemental Educational Opportunity Grant (SEOG) — A program designed by the federal government to assist undergraduate students with exceptional financial need (with priority given to Pell Grant recipients). The grant is permitted to range up to $4,000 per year depending on need and availability of funds.

Kentucky Tuition Grants — The program provides grants to students who are residents of the Commonwealth of Kentucky and who demonstrate a need through the analysis of the Financial Aid Form application. The maximum grant for 1989-90 will be $1,700.

Employment

College Work-Study Program — If a student still requires financial support to meet college costs after the federal and state grants are awarded, the student may be given the opportunity to earn an amount on an hourly basis in a campus department. This employment program is campus-based support from the federal government. Either undergraduate or graduate students can qualify if the Financial Aid Form results indicate a need.

Work-Grant — If a student cannot qualify for employment on the basis of financial need and the College needs the special skills of the student, the student can work for an amount of tuition waiver.

Coop Program with Tremco, Inc. — is available to a qualified sophomore, junior, or senior majoring in chemistry.

Loans

Perkins Loan (formerly National Direct Student Loan) — Federal loan funds are made available to students who have financial need and who maintain satisfactory progress towards graduation. Repayment at a 5% interest rate begins, for new borrowers, nine months after graduation or withdrawal from school.

Stafford Loan (formerly Guaranteed Student Loan) — This loan program exists in Kentucky and other states as a way to borrow from private commercial lenders to finance college education on the undergraduate and graduate levels. Repayment at 8% interest begins 6 months after graduation or withdrawal. Minimum payments are $50.00 a month. Eligibility depends upon at least half-time enrollment status, making satisfactory academic progres and a reporting of family income by filing tl FAF.

United Methodist Student Loan Fund - Students who are members of the Unite Methodist Church and maintain a "C" averag may apply through Union College for a loa at 6% interest from the Board of Education the United Methodist Church.

Charles M. and Mary D. Grant Loan Fun — The Charles M. and Mary D. Grant Fou dation has provided an endowed loan fund f Appalachian students who demonstrate a re need and who are in good standing at the Co lege.

Hensley Emergency Loan Fund — Mr. an Mrs. Burton F. Hensley of St. Cloud, Florid have established a loan fund for single studen at Union College who have emergency situ tions requiring small short-term loans.

The Rev. and Mrs. Erwin King Loan Fun — The Rev. and Mrs. Erwin King have estab lished a loan fund to aid worthy ministeri students in the junior or senior year at Unio College.

Guy H. Williams Loan Fund — Dr. Guy H Williams of Cleveland, Ohio, has established loan fund in memory of his wife, Anna Wi liams. The fund is available to worthy student who have spent two years at Union Colleg and have a "C" average or better.

The Beverly P. and Mossie B. Wilson Loa Fund — This loan fund has been establishe by Dr. and Mrs. O. J. Wilson of Louisville, Ky. in memory of Dr. Wilson's mother and fathe The loans shall be given to students majorin in English and repayment shall be in accord ance with the guidelines or the College's loa fund. The income from this fund shall com from the Beverly P. and Mossie B. Wilson Trus Fund.

The Charles Henry and Glennora Rominge Krieger Student Loan Fund — This loan fund established by the late Glennora R. Krieger o Ft. Thomas, Kentucky, provides loans to wor thy and needy students from the Appalachia counties of eastern Kentucky. The terms of th loan are the same as those of the United Meth odist Student Loan Fund.

Other Loan Funds — Student loans are avail able from a number of funds not specifically designated for Union College students, but fo which Union College students are eligible. Spe cific information may be obtained from the Of fice of Financial Aid.

Institutional Grants/Scholarships

United Methodist Church Grants-in-Aid — Union College will provide grants of $500 for full-time United Methodist students and will request the student's home church to match the grant. If the student plans to go into the Methodist ministry or if the student is a dependent of a Methodist minister, then a $1,000 grant will be provided by the College. In each case, a request is made to the local church to match the grant.

The grants are for one year, renewable, and may be applied to any Union College charges (tuition, fees, room and board on campus). A student is eligible for only one of the above grants.

College Employee Scholarships — Full-time employees of Union College are eligible for tuition remission scholarships. Full-time employees hired after January 1, 1975, will not be eligible for tuition scholarships for spouse or children until they have been employed for six months unless they are under annual contract. The spouse and unmarried children of full-time employees hired after June 1, 1982 may receive a Union College employee Dependent Scholarship equal to 50% of the tuition, charges, with no charges for auditing a course. Other fees are charged in full. Employee Dependent Scholarships will not be granted to children for graduate work. Application for a scholarship must be made through the Financial Aid Office prior to the registration date each term. The Kentucky Financial Aid Form (KFAF) must be filed to determine eligibility for federal state aid before an Employee Dependent Scholarship will be awarded. A tuition grant at other colleges participating in the Tuition Exchange Program is also available to employees' unmarried dependent children.

Assistantships

Senior Assistantships are available annually. Students must: be enrolled full time, have completed ninety-six hours with a 3.0 minimum grade point average overall and in their major. The duties of the Senior Assistants include occasional classroom lectures, research, remedial work with beginning students, assisting in laboratories, etc. The assistantships are not intended to cover clerical duties. The assistants are expected to spend up to eight hours per week on the work assigned with the awards ranging up to $1,000 per year. The awards are made by the Scholarship Committee. Candidates are to be recommended by the division chairperson by April 1.

Scholarships

A full-time student who qualifies for scholarship assistance on a merit basis may be entitled to more than one of the following scholarships in any one academic year. The total amount of scholarship and other financial aid cannot exceed 100% of the annual college costs.

Valedictorians and Salutatorians are awarded $2,500 and $2,000 respectively. Students in the top 10% of their graduation class are awarded $500. Evidence of high-school rank must accompany the transcript, certified by the high school attended. These scholarships are renewable every year of the student's undergraduate program at the original amount, if a minimum cumulative grade point average of 3.5 is maintained, or at two-thirds of the original amount for a 3.0 minimum average.

Academic Scholarships based on ACT/SAT scores are available, to beginning freshmen, as shown in the following chart. These scholarships are renewable for succeeding years at the original amount if the student maintains a minimum cumulative grade point average of 3.5, or at two-thirds of the original amount for a 3.0 minimum average.

ACADEMIC SCHOLARSHIP CHART

ACT Scores	SAT Scores	Award
20	900	$ 600
21	950	$ 700
22	1000	$ 800
23	1050	$ 900
24	1100	$1,000
25	1150	$1,200
26	1200	$1,400
27	1250	$1,600
28	1300	$1,800
29 and up	1350 and up	$2,000

A student receiving a Valedictorian or a Salutatorian award will not be eligible for the ACT/SAT scholarship or the "Top 10%" award. However, a student who does not receive a Valedictorian or a Salutatorian award may be eligible for the ACT/SAT scholarship or the "Top 10%" award or both.

Junior College Scholarships — in the amount of $500 are awarded to graduates of junior or senior colleges who have earned the

A.S. degree with a grade point average (GPA) of at least 2.5 on a 4.0 scale. These scholarships are renewable in the senior year at $500 if the student maintains this average, or increase to $600 if the student increases his grade point average to 3.0.

Alumni Scholarships — The Alumni Association of Union College awards six scholarships of $500 annually. These scholarships are given on the basis of character, need, and evidence of future usefulness. They are open to all full-time undergraduate students with a minimum 2.8 GPA.

Dr. and Mrs. Edward S. Amis Endowed Scholarships — Dr. and Mrs. Edward S. Amis of Fayetteville, Arkansas, have endowed a scholarship fund at Union College. Dr. Amis received the Distinguished Alumni Award in 1985. The two $500 grants will be given annually to two full-time Christian-service students who excel in local church programs.

The Ashland First United Methodist Church Scholarship — The members of the First United Methodist Church of Ashland, Kentucky have endowed a scholarship for a "worthy student", preferably a member of this church. If no member-students are eligible, the scholarship may be awarded to any United Methodist student from Kentucky.

The George L. Bagby Scholarship/Loan Fund — The late Mr. George L. Bagby of Woodford County, Kentucky, established a student financial aid endowment totaling $405,000 including accumulated interest, and this supports both scholarships and loans for Kentucky students.

Bank of Harlan Scholarships — A number of scholarships are given annually to qualified students from Harlan County by the Bank of Harlan. The grants are determined according to financial need and academic excellence.

Barbourville Kiwanis Scholarship — The Kiwanis Club of Barbourville, Kentucky, has supplemented an educational fund originated by Mr. C. F. Heidrick and established a scholarship fund at Union College for promising students from Knox County, Kentucky. The scholarship is for $700.

Barbourville United Methodist Church Music Scholarships — Annually the First United Methodist Church of Barbourville, Kentucky, awards four scholarships of $200 (for a total of $800) to music students. Consideration is given for participation in the music program of the local church.

Bell County Scholarship — A friend c Union College from Bell County, Kentucky has established a scholarship endowment wit the income to be awarded annually to a Be County student. This grant will be approx mately $350 per semester.

Bryon B. Berry Appalachian Scholarshi Endowment — Byron B. Berry, a 1935 alun nus, has established a $10,000 Appalachia Scholarship Endowment for a student majo ing in English with journalism as a career op tion. Preference is to be given to, but n limited to, a student from Lawrence Count Kentucky. Otherwise the grant is open to an student from Appalachia.

Henry C. Black Memorial Scholarship - This scholarship of $250 a semester is given a a memorial to Mr. Henry C. Black, a gradua of Union College, to a freshman graduatin from high school in Kentucky or Tennessee.

John A. and Hannah P. Black Memori Scholarships for Christian Workers — The la Dr. and Mrs. Henry C. Black, of Johnson Cit Tennessee, endowed a scholarship that pr vides an annual grant of $500 a semester for promising student who plans a life of servi in the United Methodist Church.

Dr. and Mrs. James F. Blair Scholarships - Dr. and Mrs. James F. Blair of Barbourvill Kentucky, have endowed two $600 schola ships for students from Knox County, Ke tucky. They are awarded annually to studen in the sophomore, junior or senior year.

The Annette and Berry Burnaw Scholarshi Endowment — Given by James Burnaw, a alumnus of Union College, in honor of his pa ents. The yield is designated for a student fro Nicholas County, Kentucky. Should there b no qualified student from this area during given year, the scholarship will be given some other Kentucky student.

The Eulalia Serrano Cabrero Memori Scholarship — Miss Carmen Cabrero, '6 Jacksonville, Florida, has established a scho arship in memory of Eulalia Serrano Cabrer a 1964 graduate of Union College. The $3(scholarship is available to a needy student a minority background interested in a servi profession.

Dr. and Mrs. Carlo B. Cawood Memori Scholarship — The late Dr. and Mrs. Carlo Cawood of Harlan, Kentucky, endowed scholarship to be awarded to a Harlan Coun student, with preference being given to a st dent from the Harlan United Methodi

Church. The scholarship may be renewed. The rant is $800 per year.

Mamie D. Chambers Endowment Fund — The late Mamie D. Chambers of Maysville, Kentucky, established an endowment fund, he income from which is used to help support rants to needy and deserving students.

The Dr. Emerson G. and Edith Cobb Chemstry Endowment Fund — Dr. and Mrs. Emerson G. Cobb of Burson, California, have stablished an endowment for the support of scholarship for the College's Chemistry Deartment. Dr. Cobb, a 1928 graduate of Union ollege, headed Union's chemistry program nd later became head of the Department of hemistry at the University of the Pacific, tockton, California. Mrs. Cobb, the former dith K. Cheap, is a 1929 Union graduate.

The Reverend Howard and Kathryn Coop cholarship — Established in honor of the oops by friends in churches where they have erved, the Coop Scholarship is designated for lethodist students with preference being iven to Kentucky Methodists.

The Davies Memorial Scholarship — The mily and friends of Miss Ellen Davies and Dr. . R. Davies have endowed a $1,500 scholarhip to be awarded annually to a freshman or o an upperclassman with a "B" standing from ell, Clay, Harlan, Knox, Laurel or Whitley ounty.

The Doan-Woody Scholarship — Oatis oan of Harlan, Kentucky, has endowed a cholarship that provides an annual grant to a outheastern Kentucky student who has a 3.25 rade-point average. The grant, a memorial to atis Doan, Sr., is in honor of Mary H. Doan nd Dr. Lester G. Woody, and may be renewed the student maintains an overall grade-point verage of 3.00 or better.

Dr. Robert M. Drew Endowment Fund — he Commission of Missions of the Hyde Park ommunity United Methodist Church, of Cinnnati, Ohio, has established an endowment und in honor of the Rev. Dr. Robert E. Drew. his fund will be used for scholarship grants o foreign students.

Dr. Franklin Duncombe Memorial Fund — Irs. Helen Duncombe of Haverford, Pennylvania, has established an endowment fund n memory of her late husband. Income will be sed to finance grants-in-aid for students planing to enter the United Methodist ministry.

Alfred I. DuPont Scholarship Fund — The late Mrs. Alfred I. DuPont of Wilmington, Delaware, established scholarships for needy students having high academic potential. Preference is given to students from the Appalachian counties of Kentucky and Appalachian regions in adjoining states. This amounts to $5,000 annually.

E. Nettie Edinger Memorial Scholarship — The late Mr. Joseph Edinger endowed this scholarship in memory of his sister. The scholarship is awarded annually to a deserving and worthy student enrolled at Union College.

Dr. and Mrs. J. Edward Faulkner Memorial Scholarship — This $350 scholarship is awarded to a student who plans a life of service in the healing arts, with preference being given to a predental student.

John D. Feather Scholarships — The late John D. Feather of Corbin, Kentucky, a graduate of Union College in the class of 1940, has endowed scholarships to Union College for students from Corbin High School. The trust fund will provide funds for this scholarship program.

The GAR Foundation Endowed Scholarships — The GAR Foundation has endowed scholarships for Appalachian students with priority being given to those from the Fifth Congressional District.

The President E. T. Franklin Endowed Scholarship — Mrs. Grace I. Franklin, widow of former Union College President E. T. Franklin, and the immediate family have established an endowed scholarship, the yield from which will be awarded to a student or students who maintain acceptable grades who are in financial need, and who plan to enter some form of Christian service.

W. Glover Giles Memorial Fund — The late Mr. W. Glover Giles of Louisville, Kentucky, a trustee of Union College, established an endowment fund by gifts during his lifetime and by a bequest. Income is used to fund Honor Scholarships at Union College.

John O. and Harriet B. Gross Memorial Scholarship — Family and friends have endowed a scholarship. Dr. Gross was president of Union College during the years 1929-1938. The scholarship is awarded annually to a Kentucky senior student with preference being given to one from Northern Kentucky. The stipend and requirements are the same as for "United Methodist Scholarships."

Hugh and Joyce Haggard Memorial Scholarship — A scholarship fund memorializing Dr. Hugh E. and Joyce A. Haggard, and their children, Walter M. and Stephanie L., has been established by the parents and brother of Dr. Hugh E. Haggard. Income from the fund provides an annual scholarship for a full-time student at Union College. The $2,000 scholarship will be awarded to a worthy student on the basis of financial need.

Dewey and Rachel B. Hendrix Memorial Endowment — Dwight M. Hendrix, an alumnus of Union College and his sister, Mrs. Mary Katherine Hendrix Brashear of Hyden, Leslie County, Kentucky, have established an endowment to memorialize their parents. The endowment is designated for financial aid, with the income to assist needy and qualified students enrolled full-time. Students who are residents of Leslie County, Kentucky, are given preference. Should no one qualify, then the grants are to be given to students from the Appalachian Region of Kentucky.

Walter S. and Ida Cole Hudson Scholarship Fund — The late Ida Cole Hudson of Barbourville, an alumna of Union College, endowed, through a bequest, a fund to provide scholarships to students from Knox County, Kentucky.

Irene Hughes Scholarship — Miss Irene Hughes (AB'37; MA '63), Barbourville, Kentucky, provides an annual scholarship of $250 for a freshman girl, a graduate of Knox Central High School, who has been a member of the High School Honors English Class and who exemplifies Christian principles of conduct. The scholarship will be awarded by the Alumni Scholarship Committee.

Dr. W. A. E. Johnson Memorial Scholarship — Mrs. W. A. E. Johnson of Lawrenceburg, Kentucky, and friends have endowed a scholarship in memory of her late husband, a Union graduate and long-time friend of the College. The scholarship is designated for preministerial or Christian-service students.

Professor and Mrs. Millard L. Jordan Scholarship — Professor and Mrs Millard L. Jordan of Lakewood, Ohio, have established a scholarship fund at Union College to aid worthy Appalachian students.

Junior Study Club Scholarship — The Junior Study Club of Barbourville, Kentucky, provides a $200 scholarship to aid worthy students from Knox County, Kentucky. The scholarship is awarded to a girl who graduated from a high school in Knox County and who is a junior o senior at Union College.

Kentucky River Coal Corporation Scholarship — A scholarship endowment has beer established by the Kentucky River Coal Corporation, Lexington, Kentucky, for needy students from Knott, Leslie, Letcher, and Perry counties, Kentucky. Recipients must have a grade point average of at least 2.0 during their senior year in high school, or must have o maintain a grade point average of at least 2.5 at Union College.

Jeffrey W. Kronk Memorial Scholarship — Mr. and Mrs. Walter F. Kronk of Huntsburg, Ohio, have endowed a scholarship for a needy, qualified student from Geuga, Lake, or Astabula counties in Ohio, or from the Appalachian counties of southeastern Kentucky. The scholarship is in memory of their son, Jeffrey, who was enrolled at Union College from 1963 through 1967. Should there be no qualified student from these areas in any given year, the endowment income will be used to support the Lincoln-Civil War Collection at Union College.

Verna Noe Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, has established a $500 annual scholarship at Union College in memory of his mother, Mrs. Verna Noe Landrum. The award is to go to a student from Harlan County.

W.B. Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, provides annually a scholarship of $500 in memory of his father for a promising United Methodist ministerial student. The student benefited by this scholarship must exhibit outstanding personal attitudes of religious sincerity, devotion, and earnestness in purpose.

Dorothy Lucas Memorial Fund — An endowment fund has been established in memory of Miss Dorothy Lucas, registrar of Union College for many years and beloved friend of students. The income from this fund is used to support various student-aid activities of the College.

The Magee Christian Education Foundation awards annually a scholarship for students entering Christian vocations or professions or to those of economic need who are of Christian commitment.

Gayle Miles Scholarship — An endowed scholarship has been established by friends and former students of the late Gayle Miles for students from Barbourville High School. Miss

liles taught at both Barbourville Elementary nd Union College.

John and Minnie B. McGaffee Trust Fund - Dr. and Mrs. O.J. Wilson of Louisville, Kenucky, have established the John and Minnie . McGaffee Trust Fund for the purpose of proiding financial assistance to worthy and needy reministerial students. The income may be sed for grants or loans, with preference being ven to students from the Appalachian Region f Kentucky.

Drs. Robert and Gertrude McGuire Endowed Scholarship — Drs. Robert and Gerude McGuire, graduates of Union College, ave established an endowed scholarship for Union student having a financial need and aintaining a minimum of a B average. This holarship amounts to $1,100 annually.

National United Methodist Scholarships — he Board of Education of the United Methdist Church makes available annually several nited Methodist Scholarships of $500. The wards are made on the basis of character, eed, and scholastic ability. Only students aving at least a "B" average are eligible.

Mr. and Mrs. Hiram H. Owens Memorial cholarship — Mrs. Sampson B. Knuckles ean) and Mrs. Buford T. Clark (Eleanor) have ndowed a scholarship for a Knox County stuent in memory of their parents, Mr. and Mrs. iram H. Owens. Mr. Owens was a wellnown lawyer and Mrs. Owens (Georgia Black) as the daughter of James D. Black, a governor f Kentucky and a president of Union College.

The Frances L. Patridge Scholarship — riends have endowed a scholarship in honor f Dr. Frances Patridge, a friend and employee f the college longer than any other faculty ember, with over 40 years of service. Her last nk was Vice President for Student Affairs and ssociate Professor of Health and Physical Edcation. The yield will be placed in the general holarship fund and designated for upper dision students with a 2.5 or better grade point verage.

Emory Evan Peter Memorial Endowment — he late Mrs. Laura P. Dickey of Louisville, entucky, established an endowment fund in emory of her brother, Emory Evan Peter. The come from this fund will be used to help nance the college student-aid program.

Donald Rankin Memorial Scholarship — riends of Donald Rankin, a Union College student killed in Vietnam, have provided a scholarship that pays $350 annually to a young man from Kentucky. Basis for awarding the scholarship is need and the earnest desire for a college education.

The Marvin Robbins Endowed Memorial Scholarship — An endowed scholarship has been established in memory of Mr. Marvin Robbins, a graduate of Union College. The applicant must be an upperclassman who is a Bell County High School Graduate. The selection will be based upon academic achievement and financial need.

E.O. Robinson Mountain Fund Scholarship — The E.O. Robinson Mountain Fund has established an annual scholarship program to assist needy students who reside in the Appalachian Region of eastern Kentucky. Students receiving these scholarships should give promise of being able to complete their academic work successfully.

The William Faulkner Rushton Memorial Fund — A memorial fund in memory of William Faulkner Rushton has been established by parents and friends in honor of Mrs. Lura Faulkner Rose, the late Mr. Rushton's grandmother. The yield from this fund is designated for the promotion of Appalachian literature. An annual prize will be awarded to the author for their contributions in this field.

Sanders Honor Scholarship — The late Colonel Harland Sanders of Shelbyville, Kentucky, provided a number of honor scholarships annually. Mrs. Claudia Sanders, his widow, continues to provide them. The Sanders Honor Scholarships are limited to students who do not use tobacco and alcoholic beverages.

Sims Scholarship Fund — Reverend and Mrs. Harry C. Sims of West View, Kentucky, have established a scholarship fund at Union College to aid worthy students preparing for the United Methodist ministry.

The Catherine Faulkner Singer Memorial Scholarship — This $400 scholarship has been established by friends, alumni, and her daughter and son — Marcia and Donald — for the son or daughter of an alumnus of Union College. The honoree was Director of Alumni Affairs from 1961 to 1978.

Cawood Smith Harlan County Scholarship — Dr. Cawood Smith, Harlan County attorney, has established an endowment for scholarships to be awarded to the son or daughter of miners from Harlan County, Kentucky. The recipient shall be a resident of Harlan County and is to

be selected upon the basis of need, scholarship, and promise of future usefulness in the coal region. This annual grant shall total $2,400.

Margaret Carter Stacy Scholarship Fund — Margaret Carter (Mrs. Cortis K.) Stacy of West Liberty, Kentucky, has endowed a scholarship fund for the support of students from Morgan County, Kentucky, or for Appalachian students. Mrs. Stacy is a strong United Methodist with interest in higher education for the youth of Appalachia.

Dr. and Mrs. Charles B. Stacy Memorial Scholarship Fund — A scholarship fund has been endowed in memory of Dr. and Mrs. Charles B. Stacy of Pineville, Kentucky, for students from southeastern Kentucky. A longtime friend of Union College, Dr. Stacy had an abiding interest in education of the Appalachian region.

The Steele-Reese Foundation Endowed Scholarships — The Steele-Reese Foundation of New York City has established a $100,000.00 endowment with the yield being designed for scholarships for qualified Appalachian students.

The Stevens Family Scholarship Fund — Dr. Erland P. Stevens, a Union College trustee of Ashland, Kentucky, and Mrs. Stevens have established a scholarship fund with 80 percent of the earnings being distributed annually as scholarship grants and with 20 percent of the yield being reinvested in the Stevens Family Scholarship Fund. The scholarships shall be a part of the College's general scholarship fund.

Lewis Ogden Stiles Endowment Fund — The late Mrs. Lewis Ogden Stiles of Waco, Texas, established this fund to memorialize her late husband, Lewis Ogden Stiles, and his first wife Pearl Long Stiles, both faithful United Methodists of Irvington, Kentucky. The income from this fund will be used to finance grants-in-aid under the college loan-grant program to United Methodist students planning to enter the ministry of the Kentucky or Louisville Annual Conference.

The Walter B. and Geraldine G. Sutton Memorial Scholarship — An annual scholarship will be given to a Knox County student attending Union College. The selection will be determined by the student's need, academic ability, and promise of future usefulness. The endowment is provided by two daughters: Carla Sutton Combs and Lynn Sutton Prichard.

Lytle and Dorothy Swope Scholarship — Dr. Samuel G. Swope of Louisville, Kentucky, a trustee of Union College, and F. Willia Swope of Elizabethtown, Kentucky, have e tablished a scholarship endowment as a mer orial to their parents. Funds for th endowment came from their parents' estat Up to four scholarships are awarded annual with grants of $600 each. Preference is give to students born in Kentucky, Ohio, or Florid

Hulbert Taft, Jr., Memorial Scholarship - Mrs. Thomas C. Haydock, Sr., of Cincinna Ohio, has provided a scholarship endowme as a memorial to her late husband, Hulbe Taft, Jr. The income from the endowment w be used annually to provide one or more hon scholarships to needy students having high a ademic potential.

The Dot Tatman Endowed Scholarships - Four $250 endowed scholarships have been e tablished by the Reverend Dr. Harold W. Ta man, Jr., in honor of his wife, Dot. Th scholarships are to be given to freshmen an continue over the four-year period with pre erence to Kentucky female students.

The Teagle Foundation Appalachian Scho arships — The Teagle Foundation of New Yor City has established a number of scholarship for qualified Appalachian students. The four dation was established by Walter Clark Teagl Rowena Lee Teagle, and Walter C. Teagle, J

Edward Townsend Memorial Scholarshi — Dr. Milton H. Townsend has endowed scholarship with preference being given to history and political science major. The gran is in memory of Dr. Townsend's late father.

TREMCO, Inc., Scholarship — A $4,00 scholarship is awarded by TREMCO, INC., division of the B.F. Goodrich Company, to a incoming freshman chemistry major with pref erence to a student from southeastern Ken tucky.

Allan Tuggle Scholarships — Allan Tuggle M.D., of Charlotte, North Carolina, an alum nus of Union College, has established a num ber of scholarships in mathematics an physics.

Several of the scholarships are awarded t entering freshmen on the basis of competitiv examination. Other scholarships are awarde to current students with majors or minors i mathematics or physics on the basis of aca demic achievement. Some of the scholarship may be in the form of work grants.

Union National Bank Scholarship — The Union National Bank of Barbourville, Ken

cky, has established a half-tuition scholar-ip at Union College to aid worthy students om Knox County, Kentucky. It is awarded to student graduating from a high school in nox County, for the freshman year at Union ollege.

Vaughn and Melton Company Scholarship · This scholarship is given by Vaughn and elton, Consulting Engineers of Middlesboro, entucky. An annual award of $500 for a stu-nt from southeast Kentucky whose high hool and college scholastic record reflects the otential for making a major contribution to e quality of life of the region.

Harry C. Viall Memorial Scholarship — rs. Harry C. Viall of Barbourville, Kentucky, as endowed a memorial scholarship for a eedy, qualified student with preference going an individual from Knox County. The an-ual $1,300 scholarship is given in memory of r late husband, Harry, who was a prominent cal businessman.

Mr. and Mrs. O. H. Viall Memorial Schol-ships — The family of Mr. and Mrs. O. H. all of Barbourville, Kentucky, has established memorial scholarship fund at Union to aid orthy students. The number and size of the holarships vary according to student finan-al need.

The Robert E. and Ann Viall Endowed holarships — Mr. and Mrs. Robert E. Viall Barbourville, Kentucky, have established en-owed scholarships that provide $6,000 an-ually for worthy students from either Knox Bell County.

William M. Wilson Memorial Scholarship · The late Mrs. Eva Oldfield Wilson of Bar-ourville, Kentucky, established a scholarship nd in memory of her deceased husband. The come from the fund will be used to provide annual grant of $350 for a promising student reparing to teach in the elementary or sec-ndary schools.

The Wimmer Chemistry Scholarship — A holarship is being funded by Mrs. C. R. Wim-er in memory of her husband, Dr. C. R. Wim-er, who was head of the chemistry epartment at Union College from 1932-1946. he scholarship is to be given to a student who seeking to major or minor in the field of hemistry.

Dr. Henry M. Zimmerman Scholarship — he late Dr. Henry M. Zimmerman of Pom-ano Beach, Florida, established a scholarship ndowment for needy students of exemplary character who show promise of being able to contribute to the well-being of their country and their fellow man.

Endowments

The Russell M. Bennett Memorial Professor of Sociology Chair — Mrs. Helen Hunt Bennett gave $75,000 to Union in 1946 for the endowment of this professorship. An additional $2,000 was given for equipment for the Business Department.

Andrew and Emma Elizabeth Edinger Memorial Fund — This fund was established by the late Mr. Joseph Edinger in memory of his mother and father. The fund has been increased by other members of the family and the income designated for use in the maintenance of campus buildings.

James P. Faulkner Memorial Endowment — James P. Faulkner of Barbourville, Union College president from 1897 to 1905, gave property to the college, the sale of which produced $57,500. The income from this investment is used for salary support for a faculty member in philosophy.

The Raymond W. Gibson, Sr., Chapel Endowment — Mr. Raymond W. "Deacon" Gibson, Senior, of Danville, Kentucky, established a $50,000 endowment at Union College in 1979 for the upkeep and maintenance of the Conway Boatman Chapel. His son, Raymond W. Gibson, Jr., served as Campus Minister at Union College from 1974 to 1979. The late Mr. Gibson, a prominent layman in the Kentucky Conference of the United Methodist Church, was a long-time friend of Union College.

Dr. Frank A. and Mrs. Eleanor Gilbert Biology Faculty Endowment — The late Dr. and Mrs. Frank A. Gilbert established a Biology Department Endowment to augment the salaries of the biology faculty. The annual supplement will be in addition to regular salaries. Dr. Gilbert was professor emeritus of biology at Union College.

Anna E. and John William Harris Memorial Fund — The late Dr. J. William Harris established a lectureship fund containing the sum of $30,000 in memory of his sister, Anna E. Harris, and his father, John William Harris.

The Kenneth G. Herrick Faculty Endowment — Kenneth G. Herrick of Tecumseh, Michigan, has established a Faculty Development Endowment at Union College. The yield from this fund will support increased faculty

salaries and professional advancement for the faculty. This endowment was established in 1986.

The Professor Daniel M. Humfleet Scholarship Endowment — Mrs. Bernice Humfleet Aguilera of Natchitoches, Louisiana, has established a $25,000 endowment at Union College in memory of her father, Professor Daniel M. Humfleet, a former faculty member of the College. The yield from this fund will go for the support of a scholarship for a Knox County student who plans to enter the teaching profession. The scholarship will begin following the lifetime of Mrs. Augilera.

Charles and Leona Jennings Memorial Funds — Dr. Charles M. Jennings of Marietta, Georgia, has established an endowment fund in memory of his parents, Charles and Leona Jennings, the income from which is to be used to provide an annual bonus to the head of the Department of Biology at Union College.

William Jones Endowment Fund — The late Mr. William Jones of Barbourville, Kentucky, established a fund, the income from which is designated for use by the music department to purchase recordings and musical scores.

Jeffrey Kronk Memorial Endowment — This endowment, established by the Senior Class of 1967, in memory of Jeffrey Kronk, a member of that class, will assist in purchasing books for Union College's Lincoln-Civil War Collection.

Francis Landrum Memorial Professor of Religion and Philosophy — The late Mrs. Obed J. Wilson established the Francis Landrum memorial professorship through a bequest of $50,000 in 1927.

Melanie Jean Martin Trust Fund — Dr. and Mrs. O. J. Wilson, of Bowling Green, Kentucky, have established a memorial fund in memory of their granddaughter. The income from this fund is used to purchase library books to support the work of the English department.

Pearl Sinnett Meyer Memorial Fund — The Rev. Dr. Jesse I. Meyer has established an endowment fund in memory of his wife, Mrs. Pearl Sinnett Meyer. The income of this fund is designed for the purchase of books for the Union College library.

Allan Tuggle Endowment Fund — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a fund, which may be augmented from time to time, the income from which is designated for scholarships, awards, and instructional support in mathematics and physics.

Willson-Gross Lectures — The late Dr. ar Mrs. James Wilson of Floydada, Texas, esta lished a lectureship endowment in memory Dr. and Mrs. John Owen Gross. The purpo of the lectures is to bring annually to the car pus distinguished speakers to discuss vital i sues confronting the Christian student.

Colutha J. Taylor Wright Memorial Fund - The late Mr. J. S. Wright of Whitley City, Ke tucky, established an endowment fund i memory of his wife, Mrs. Colutha J. Tayl Wright. The initial sum was $1,000.

Awards

Note: These awards may be presented at th annual Honors Day Convocation. Some are a ademic in nature; to be eligible for such award students' academic records should not includ any grades of "incomplete." Postgraduate st dents are ineligible to receive these awards.

Alpha Psi Omega Award — given by Alph Psi Omega, National Dramatics Honor Frate nity, to the junior or senior student who ha made outstanding contributions to theatre a Union College over a period of years.

Bjornstad Freshman Composition Award — given by Dr. William Bjornstad, a former fac ulty member of Union College, and Mrs. Bjorn stad, to the student achieving the highes writing excellence in freshman compositio courses as determined by the English Depart ment.

Governor James D. Black Senior Award — given by the late Mr. Pitzer D. Black of Bar bourville to the senior student with the highes scholastic average for the year.

Blackwell Political Science Memoria Award — given by the late Dr. Robert Le Blackwell to the senior majoring in history and or political science showing the highest aca demic excellence in the field of political science.

Erwin S. Bradley History Award — given t an upperclass student with a major in histor who has the highest scholastic average in over all grades in history earned at Union College.

Melva and Kathy Brick Award — given b Mr. Theodore F. Brick, family and friends t the student showing the highest proficiency in competitive swimming.

Calculus Award — given by a friend of the College to the student with the highest cu mulative average in all three calculus courses offered at Union.

Campus Activities Board Award — given by e Campus Activities Board to the senior ember who has contributed the most to the ard and to student activities at Union Colge during the academic year.

Campus Ministry Award — given to the senr who, by his or her actions, exemplifies selfssness and concern for the needs and well-ing of others as determined by the office of ampus Ministry.

Chemical Rubber Company Freshman hemistry Award — given by the Chemical ubber Company Press of Boca Raton, Florida, the outstanding freshman chemistry major.

Dr. Theodore R. Davies Senior Biology ward — given in memory of the late Dr. heodore R. Davies to the senior student owing the highest academic excellence in the eld of biology.

Eastern Kentucky Essay Award — given by e late Dr. Kenneth H. Tuggle, a trustee of nion College, to the student writing the best say on eastern Kentucky history.

Engineering Award — given by a friend of e College to the student with the highest cuulative average in pre-engineering courses ught at Union College.

Evans Phillips & Company Scholarship ward — given by Evans Phillips & Company, P.A.'s of Barbourville — an annual $500 holarship to be awarded to the most promng freshman or sophomore accounting mar. The scholarship is to be used in the fall mester. The recipient also receives a plaque d a cash award.

Dr. L.A. Geiss Computer Award — given Mrs. L.A. Geiss and the late Dr. Geiss, a nion College trustee, to the student exemifying excellence in computer information stems.

Dr. L.A. Geiss Junior Award — given by rs. L.A. Geiss and the late Dr. Geiss, a Union llege trustee, to the junior majoring in acunting with the highest cumulative standing that field.

Dr. L.A. Geiss Senior Award — given by rs. L.A. Geiss and the late Dr. Geiss, a Union llege trustee, to the graduating senior maring in business with the highest cumulative anding in the field.

Dr. Albert D. Graham, Jr., Social Studies ward — given by Dr. Albert D. Graham, Jr., the senior education major who shows the eatest teaching potential in Social Studies.

Health and Physical Education Faculty Award — given by the Union College Health and Physical Education Department to the senior Health or Physical Education major with the highest cumulative academic standing.

Iota Sigma Nu Freshman Award — given by the Iota Sigma Nu Honor Society to the freshman with the highest scholastic average for the year.

Iota Sigma Nu Sophomore Award — given by the Iota Sigma Nu Honor Society to the sophomore with the highest scholastic average for the year.

H.B. Jones Business Enterprise Award — given in memory of Mr. H.B. Jones to the student who has shown initiative and enterprise in the field of business.

Steve Jones Memorial Award — given in memory of Steve Jones, a Union College graduate, to the Senior Varsity Letterperson with the highest cumulative academic average.

The Journalism Award — given by the English and Foreign Languages Department of Union College to the English major with journalism emphasis who has done the most to promote high journalism standards at Union College and who shows the greatest promise for success in a professional journalistic career.

The Literature Award — given by the Tuesday Club of Barbourville to the student majoring in English who shows the greatest excellence in the field of literature.

Marigold German Award — given by Dr. W. Gordon Marigold in memory of his mother, Mrs. W. J. Marigold, of Toronto, Canada, for excellence in the field of German.

Marigold Microcomputer Lab Award — given in honor of Mrs. Connie Marigold, whose assistance and enthusiasm have greatly contributed to the development of the microcomputer laboratory. This award is given to the microcomputer laboratory assistant who has best demonstrated excellence through service to students and faculty in the microcomputer laboratory.

Mathematics Award — given by a friend of the College to the graduating senior math major who has the highest cumulative average in math courses at Union College.

Military Order of World Wars Award — given by the Louisville Chapter of the Military Order of World Wars to the Military Science I or II student for outstanding leadership and academic excellence.

Dr. Mahlon A. Miller President Emeritus Award — given by Dr. and Mrs. Mahlon A. Miller to the senior with the highest cumulative average earned at Union College.

Rena Milliken Award — given in honor of Miss Rena Milliken, Professor Emeritus of Business at Union College, by the Union College Business Department to the graduating senior who shows the greatest potential for professional achievement.

Dr. Paul Muncy Memorial Award — given in memory of Dr. Paul Muncy to the senior pre-medical student with the highest cumulative academic standing.

Music Faculty Award — given by the Union College Department of Music and Fine Arts to a music major for his or her interest, initiative, cooperation, musical ability, academics and service to the department.

National Education Association — Student Program Award — given by the Union College Chapter of the National Education Association — Student Program to the graduating senior showing the greatest excellence in the field of education.

H.H. Owens History Award — given by the late Mrs. H.H. Owens to the student showing the greatest excellence in the field of history.

Laws and Esten Parks Award — given by Dr. S. Laws Parks, former Vice President for Business Affairs at Union College, and Mrs. Parks, to the senior religion major with the highest cumulative academic standing.

Patridge Theta Pi Delta Awards — given by the "Union Express" and **Stespean** staffs in honor of Dr. Frances Patridge, former Vice President for Student Affairs at Union College, to seniors who represent the qualities of outstanding service exhibited by Dr. Patridge.

Phoenix Award — given by the Drama and Speech faculty of Union College to the freshman or sophomore student who has contributed the most to theatre at Union College in the academic year.

Physics Award — given by a friend of the College to the student showing the greatest excellence in the general physics course taught at Union College.

Reserve Officers Association Award — given by the Kentucky Department of the Reserve Officers Association to the Military Science III student for possessing potential leadership qualities and achievements.

William Faulkner Rushton Award for A palachian Literature — given in memory William Faulkner Rushton. This award h been established by parents and friends honor of Mrs. Lura Faulkner Rose, the late M Rushton's grandmother. Awards will be giv to a Union College student and a student fr a Knox County high school. Winning pap will be selected by a committee of judges fr entries submitted by classroom teachers.

Sampson Political Science Award — giv by the late Governor Flem D. Sampson to t junior showing the highest academic exc lence in the field of political science.

William Hugh Smith Memorial Award given in memory of the Reverend Willia Hugh Smith to a pre-ministerial or Christia service student (with preference being given a Christian-service student) who shows pro ise in the ministry.

Hattie Stanberry Ecology Award — given memory of Hattie Stanberry, an alumna a former faculty member, to the student or o ganization that has made a contribution to e vironmental improvement in the academ year. If there is no qualified candidate, the $ stipend shall go to the College's Soccer Clu or, if there is none, it shall go to the Annu Fund.

Thomas Storrar Memorial Award — giv in memory of Thomas Storrar, former direct of Union College's food services, by the Circ K Fraternity to the student who exemplifies t honesty, concern, and personal commitme to the Union College community that was di played by Mr. Storrar.

Student Activities Appropriations Commi tee Student Organization Achievement Awar — given by the Student Activities Appropri tions Committee to the campus organizatio which, in the committee's opinion, has co tributed the most toward campus activiti during the academic year.

Student Government Association Award – given to the newly elected Student Gover ment Association President.

Student Government Association Certifica of Service Award — given by the Union Co lege Student Government Association to member of the Union College staff for his o her contributions to the Student Governme Association during the past year.

Student Government Association Distinished Professor Award — given by the ıion College Student Government Associan to a member of the Union College faculty.

Student Government Association Secretary the Year Award — given by the Union Col;e Student Government Association to a sectary employed by Union College. The :ipient is selected by the secretaries on cams.

Katherine V. Sutphen Memorial Award — ven in memory of Katherine V. Sutphen, a mer faculty member of Union College, to the ıdent who has used his or her talents best ring the year in serving the Union College usic Department.

Judge W.W. Tinsley Family Memorial ward — given by the late Mrs. Mayo Tinsley thfon to the junior or senior preparing for a al career showing the greatest promise of ture success.

Tremco, Inc. Award — given by Tremco, c. of Barbourville to the junior majoring in emistry showing the highest academic exllence as determined by the science faculty.

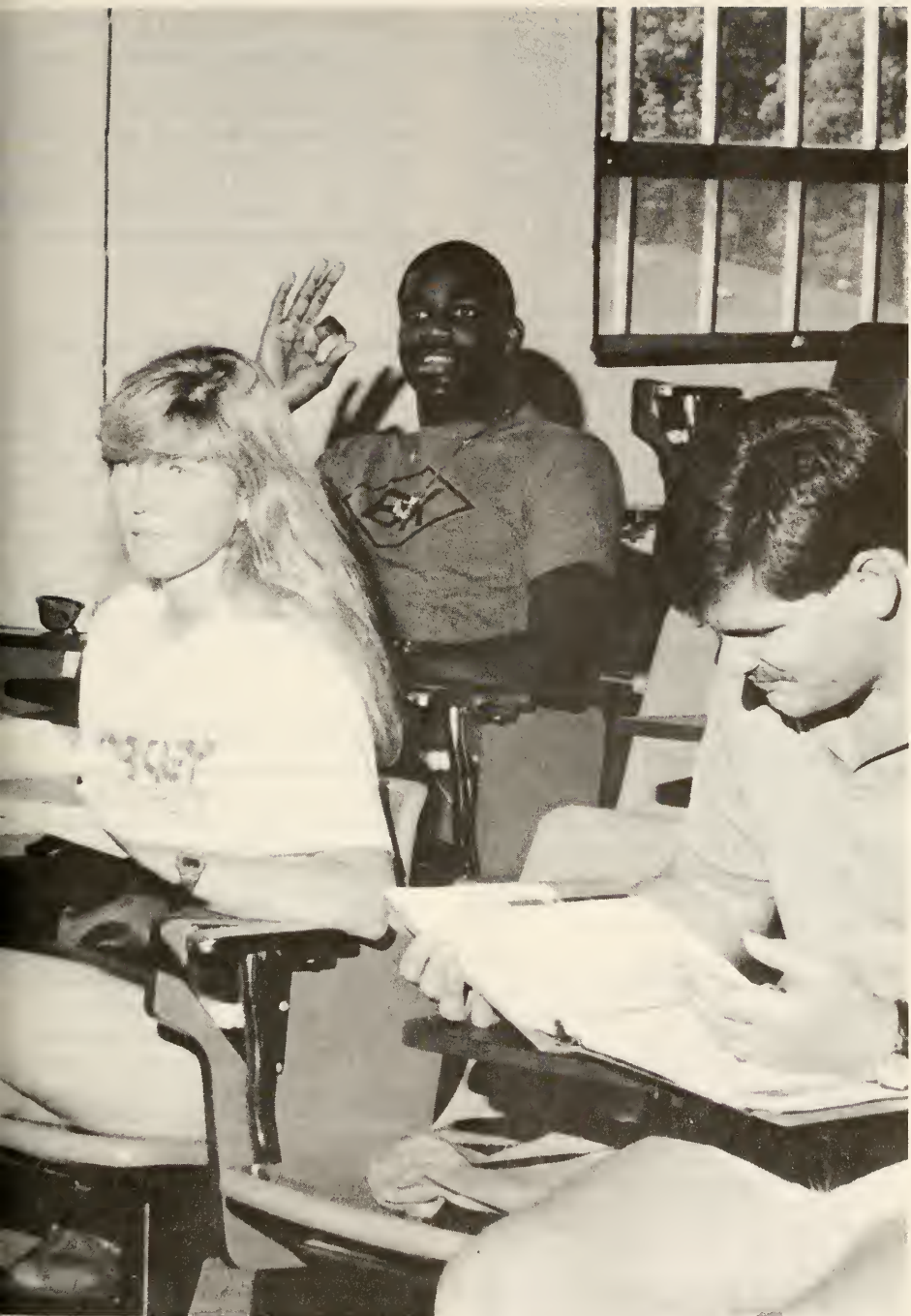
Beverly P. and Mossie B. Wilson Memorial ward — given by Dr. and Mrs. O.J. Wilson memory of Dr. Wilson's parents to the English major with the highest cumulative grade point average who has completed three full years of residence at Union College.

Dr. Cecil H. Wilson Junior Award — given by Dr. Cecil H. Wilson, an alumnus and trustee of Union College, to the junior with the highest scholastic average for the year.

John Henry Wilson Sophomore Award — given by Mrs. Guy D. Atkisson, Jr., of St. Petersburg, Florida, the granddaughter of the late John Henry Wilson of Barbourville, to the sophomore from the Fifth Congressional District of Kentucky who has the highest scholastic average for the year.

Wimmer Chemistry Award — given annually to the student showing the greatest promise in the field of chemistry. Dr. C. R. Wimmer was head of the Chemistry Department at Union College from 1932 to 1946. He also served as academic dean during this time.

Work Study Merit Awards — given by the Union College Financial Aid Office to students who are nominated by their supervisor. They should have worked in the same office at least three consecutive semesters, be making progress toward completing their present award and have a clear account.



THE ACADEMIC PROGRAM

Academic Calendar

Union College operates on a semester system. The Fall semester begins in early September and ends before Christmas. The Spring semester runs from January to early May. The college has a special three-week May interim session as well as two five-week summer terms.

Course Load

The normal undergraduate student load is sixteen semester hours per semester. Students who have an average academic standing may register for a maximum of eighteen semester hours credit per semester. Students who attain a "B" average are permitted to earn up to twenty-one semester hours per semester. Exceptions must be approved by the Vice President for Academic Affairs.

The maximum load in the May interim is three semester hours. The maximum load in each summer term is six semester hours. Students whose cumulative grade point average is "B" or better may request permission from the Vice President for Academic Affairs to take seven hours a term.

Class Attendance

1. Class attendance is required. Each student is responsible for all work from the first day of class and is expected to attend all meetings of the class for which he is registered. This is regarded as a matter of individual student responsibility.
2. All faculty members are expected to keep accurate records of class attendance.
3. Class absences due to circumstances beyond the control of the student will be excused by the teacher involved if the request is made within one week of return to campus. Class work or tests in these classes must be made up.
4. Class work and tests missed due to illness of a student can be made up only when the student presents the teacher with a valid excuse when he returns to class.
5. Class work and tests missed by the student while he is participating in an activity sponsored by Union College may be made up only when the faculty sponsor of such an activity signs the official absence list of students.

Withdrawal From Courses

A student is not automatically withdraw when he stops attending a class. Official wit drawals are made only on forms provided l the Registrar's Office. It is the student's r sponsibility to complete this form, obtain tl signatures needed, and return it to the Regi trar's Office. Failure on the part of a stude to follow this withdrawal procedure will resu in a grade of "F" for the term.

Course Numbering System

Courses numbered 100 or 200 are intended pi marily for lower division students and 300- an 400-level courses are generally reserved for uj perclassmen. Freshmen or Sophomores desi ing to enter 300- or 400-level courses shou confer with the division chairperson involve for permission to enroll. 500-level courses a restricted to graduate students.

Courses with hyphenated numbers (101-10 are used when the first semester is prerequisi to the second.

Reserved Course Numbers

Some Special numbers are reserved for specif types of courses or studies. They may be use in any department although they are n shown in the following pages under the sp cific listings.

001-099	Non-credit special interest courses.
181, 281, 381, 481, 581	"Special Topics" courses — classes developed on a one-time or experimental basis, o a special innovative class.
282, 482, 582	Special workshops, credit or non-credit.
183, 283, 483, 583	Television courses through Kentucky Education Televisic Network.
184, 284, 384, 484	May interim courses not liste under a regular catalog number.
285, 485	Experiential Education — Study abroad, internships, cooperative work, experience and vocational work experience.
287, 487	Field Practicum in specialized areas.

5, 595 Independent Study — individual research on approved topics not found in traditional courses. May be repeated on different topics.

pecial Notations

ch course description indicates the semester e course will be offered — (F) for Fall Seester, (S) for Spring Semester, and (Sum) for mmer Session.

Many regular year courses are offered in mmer sessions but are not guaranteed ofings.

Courses indicated as being offered in "Even ars Only" are offered on an alternate year sis in academic years *beginning* with even mbers, as 1978-79 — "Odd Years Only" urses are offered on an alternate year basis academic years *beginning* with odd numbers, 1979-80.

Students should consult regularly with their visors to ensure proper progress toward eir degree. During the last semester of the phomore year, a final planned curriculum is epared which constitutes a contract for the urses remaining to be completed in order to rn the degree. **It is the student's responsiity to initiate the process of developing the anned curriculum. Each student is responle for completing all requirements.**

he Grading System nd Quality Points

Marks are reported in letters as follows:

A — Represents distinctly superior work, valued at four quality points for each semester hour.

B — Represents above average work, valued at three quality points for each semester hour.

C — Represents average work, valued at two quality points for each semester hour.

P — Indicates that a course has been passed satisfactorily.

D — Represents inferior but passing work, valued at one quality point.

F — Indicates failure with 0 credits and 0 quality points for each semester hour or failure to officially withdraw from a course.

W — Indicates that a student withdrew during the first 12 weeks of the semester.

I — Indicates that in the opinion of the instructor the student has not been able to complete the required work of the course on time due to unavoidable circumstances.

NP — Indicates No Grade Posted — For Developmental Studies courses only.

An "I" received at the end of any semester must be removed before the end of the next semester if the student is enrolled for that term. If the student is not enrolled, the "I" must be removed before the end of the 12 month period following the date on which the "I" was received. Any exceptions to the time limit must be made by agreement of the instructor, division chairperson, and Registrar. If an "I" is not removed within that time limit, it remains on the permanent record and cannot be made up.

Quality Point Standing

The quality point standing of a student is determined by dividing the total quality points which he has earned by the total number of semester hours for which he has registered minus the number of hours of Credit and Incomplete on his record.

Classification of Students

Freshman	less than 32 semester hours
Sophomore	32 semester hours
Junior	64 semester hours
Senior	96 semester hours

Credit/Fail Option

The purpose of the Credit/Fail option is to provide the opportunity for students to explore elective courses outside their area, major, or minor without engaging in competition with students specializing in those subjects and without jeopardizing their grade point average.

This option excludes all courses in the Liberal Education Core and any area, major, or minor. It is available only to those students with at least sophomore classification and those maintaining a 2.0 grade point average. This option is also available to transfer students of sophomore classification and who have completed at least twelve hours of satisfactory work at Union College.

This option allows that no more than fifteen semester hours may be applied toward graduation with a Bachelor's degree, no more than two courses per academic year (July through June), and only two courses in any single discipline. No more than nine hours may be applied toward graduation with an Associate degree.

A student must apply in the Registrar's Office for the Credit/Fail option by the last date identified in the current academic calendar to withdraw from a course with a grade of "W". It is a matter between the Office of the Registrar and the student. The information is not available to instructors except when the student communicates the same to the instructor. A grade of "D" or above will be recorded as CR and an "F" will be recorded as such.

Examinations and Reports of Marks

Examinations are held at the close of each semester. Tests are held at such times during each semester as the instructors may determine. Mid-semester and semester grades are reported by the instructors to the Registrar. Mid-semester grades are mailed to students' advisors as soon as possible, and students are urged to obtain these grades from their advisors. Where permission to mail grades to parents has been given, grades of students receiving a grade of "D" or "F" at mid-semester will be mailed to home addresses ten days after classes resume following the mid-semester break. Copies of final semester grades are given to students and, where permission has been granted, mailed to parents. Only final grades become a part of a student's permanent record.

Grade Appeal

Students are entitled to redress any grievances relative to grades. Please refer to the student handbook or contact the Office of Academic Affairs.

Honor Students

Union College recognizes excellent scholarship in three ways: The Dean's List, the Presidential Laureates, and graduation with honors.

The Dean's List is comprised of those students who have completed at least 12 hours of graded work with a 3.25 grade point aver and no grades of "I" for the semester. This is published after the fall and spring semest

Presidential Laureates are those stude who meet all requirements for the Dean's and achieve at least a 3.75 grade point aver for two successive semesters with at leas hours of graded work and no grades of "I each semester. The two summer sessions r be counted as one of these semesters if minimum hours have been earned. The lis students designated as Presidential Laurea is published after the fall and spring semes

Appropriate certificates are given in rec nition of both of these achievements, and gr uation honors are noted on the diplomas those receiving degrees with distinction scribed on page 36 of this catalog).

Probation

Students falling below the following gr point average and corresponding minimum mester hours will be placed on Academic P bation:

Freshmen 1
Sophomores (32 hours) 1
Juniors (64 hours) 2
Seniors (96 hours) 2

Probationary students are closely monito by the Academic Standing Committee of College. Students who are on academic p bation may be restricted as to course tak may be required to repeat courses in which grades have been earned, lose Union Coll financial aid, or be suspended from the C lege.

Academic Amnesty

Students having received a grade point av age (GPA) of less than 2.0 in a semester m apply once only to the Registrar for acade amnesty after having completed two cons utive semesters of 12 hours with a minim GPA of 2.0. Twelve semester hours earned d ing the summer terms may be counted as semester. Course titles and grades remain previously recorded on the academic reco Credit will be given for courses with grades "C" or higher. None of the grades in the mester for which academic amnesty is gran will be used in calculating the GPA. Trans students bringing less than a 2.0 GPA or hav received any form of academic amnesty at

er institution do not quality for any amnesty ion at Union. Students who receive am- sty will not be eligible for academic honors ed on cumulative GPA.

Students who have been out of school for o years or less may be readmitted on a con- ional basis and apply for academic amnesty er completing two consecutive semesters of isfactory (2.0) work. Students who have en out of school more than two years will be ated as transfer students.

ortfolio Development rogram

The Portfolio Development Program is a pro- m designed to accommodate non-tradi- nal students who have not been to college ore or who dropped out of college in pre- us years and would like to return. It is struc- ed to make it possible for these types of dents to earn academic credit for prior learn- that has taken place from life/work expe- nces. Students must register for the initial urse, Portfolio Development, in order to rn how to develop a portfolio document. For ther information, contact the Director of rtfolio Development or the Office of Admis- ns.

ollege-Level Examination rogram (CLEP)

Union College is a regional testing center for e College-Level Examination Program LEP). The CLEP tests provide college credit material students have mastered through f-study or non-accredited classes. There are e general exams and 30 subject area exams. an Open Testing Center, Union College ad- nisters CLEP exams the second week of each nth.

By passing the CLEP examinations, degree- king students enrolled at Union College can rn up to 30 semester hours of credit toward our-year program; 15 hours may be earned ward a two-year program. High school spe- l students, and other special students, are t eligible. Credit may not be earned, through EP, for courses required for teacher certifi- ion by the Kentucky Department of Edu- ion. CLEP should not be utilized to make a failed course.

Exams in the general battery must be taken fore the student achieves sophomore status. Further information is available in the Office of Special Programs.

Credit By Examination

1. The student will apply for credit by examination at the appropriate Division Chairperson's office. An initial screening interview will be conducted and the division chairperson and appropriate faculty member will be consulted to determine if an evaluation seems feasible.
2. If an evaluation is feasible, the student will take a completed application form to the faculty member and arrange for an evaluation date. The faculty member will prepare an evaluation procedure, carry out the evaluation, and report the results to the appropriate Division Chairperson.
3. Reported results will include a recommendation as to whether or not credit should be awarded and a description of the evaluation procedure and student performance. This material will be maintained on file in the Instructor's Office.
4. The recommendation and evaluation description will be forwarded to the division chairperson or a designated representative for review. If the division representative does not concur, the faculty member, designated representative (if there is one), and the division chairperson will meet with the Vice President for Academic Affairs to seek a resolution.
5. Successful completion of a challenge examination will be reported to the Registrar by the Instructor and will be recorded as "Credit" on the transcript. An unsuccessful challenge will not be recorded.
6. Students enrolled in a course may request a challenge examination only within the period when a new course may be added.
7. Challenge examinations may not be used for developmental courses, to repeat a course, or remove an "F" from the transcript.

Independent Study and Experiential Education

Union offers to qualified students the opportunity to work independently to earn credit for graduation. This option is reserved primarily for Junior and Senior students who have

indicated the academic maturity to be able to accomplish the requirements of the course.

Registration for either of these options is during the designated time period for registration of other courses. Deadlines for adding courses should be adhered to for Independent Study and Experiential Education. Forms can be obtained from the Registrar's Office, Division Chairperson's Office, or the Vice President for Academic Affairs' Office.

Transfer and Correspondence

Any student planning to graduate from Union College must receive permission from the Registrar to register for correspondence courses. Credits cannot be recorded unless prior arrangements are made.

Students enrolled for a full-time program of study shall defer work on all correspondence courses during the term for which they are registered.

Not more than twelve semester hours of correspondence work done in one academic year will be accepted by the College. Not more than one-fourth of the courses in a major may be completed by correspondence. Not more than thirty-two semester hours of correspondence credit will be accepted toward a degree.

Not more than six semester hours of correspondence may be accepted during the senior year. Students with sixty semester hours or fewer at Union may offer six semester hours non-residence in the last thirty-six; students with sixty-one semester hours or more may offer six semester hours out of the last twenty-four.

Failure or quality point deficiencies in any course done in residence cannot be removed by transfer credit, correspondence or Independent Study.

Graduating seniors must complete any correspondence work needed for graduation at least four weeks before the date of Commencement.

Assessment Day Activities

Union College has developed a plan of action related to on-going assessment of our academic programs as well as other aspects of our college community. This is a continuous program throughout the school year but much of the data collection will center around an Assessment Day, identified in the school calenda where students are expected to participat Since an on-going evaluation of college pr grams is important to the quality of our offe ings and because the Southern Association Colleges and Schools requires some type of a sessment program, this Assessment Day pa ticipation has been made a part of graduati requirements. Questions related to this pr gram should be directed to the Director of Pla ning and Evaluation or the Vice President f Academic Affairs.

Convocations

There are three convocations held at Unic each year, Fall Convocation, Spring Convoc tion, and Honors Convocation. Attendance required for all full time students for the F and Spring Convocations. If a student miss one or both they must state in writing the re son for missing to the Office of Academic A fairs. Alternate forms of make-up are availab to the students and these are indicated in cc respondence each semester. Failure to comp will result in a letter of non-compliance bei placed in the students folder.

Graduation Requirements

Requirements for Graduation — Bachel Degrees — Arts, Music, and Science.

The candidates must satisfy the following r quirements:

1. Minimum of 128 semester hours. Thir of the last thirty-six must be earned residence at Union College. Students wh have earned as many as sixty-one seme ter hours at Union College may gradua with only eighteen of the last twenty-fo hours earned in residence. At least for semester hours must be in courses nur bered 300 or above.
2. Quality point standing of 2.00 overall ar at Union, and in all courses taken in th major or minor fields.
3. Completion of the Liberal Educati Core.
4. The equivalent of 12 semester hours of single foreign language not native to th student is required for the Bachelor of Ar Degree. Equivalency shall be determin by the successful completion of the four college course of the language. Studen with prior training in that language at th

high-school level may be eligible for advanced placement in the sequence of courses and meet the requirement with fewer than twelve credit hours.

Religion majors may substitute a year of Hebrew and a year of Greek for the language requirement for the Bachelor of Arts degree.

For the Bachelor of Science degree the student must meet all graduation requirements, including a major or area. A foreign language may or may not be required as determined by the individual discipline.

Completion of either:

a. A major as determined by the faculty of the individual discipline.

   Majors are offered in: Accounting, Biology, Business Administration, Business Education, Chemistry, Christian Education, Church Music, Computer Information Systems, Drama and Speech, Early Elementary Education, English, History, History and Political Science, Mathematics, Middle Grades Education, Music, Music and Business, Music Education, Office Administration, Philosophy/Religion, Physical Education, Physics, Psychology, Religion, Science Education, Secondary Education and Sociology.

   Minors are offered in: Accounting, Appalachian Studies, Biology, Business Administration, Chemistry, Computer Information Systems, Computer Science, Drama, Drama and Speech, Economics, English, Environmental Studies, Health Education, History, Marketing, Mathematics, Music, Office Administration, Philosophy, Physics, Political Science, Psychology, Religion and Sociology.

b. An area, the structure of which is determined by the faculty of the Division in which the area requirements are met.

   Areas are offered in: English, Mathematics-Physical Science, Science and Social Studies.

At least forty semester hours offered for graduation must be earned in junior and senior courses (300 or above); at least six semester hours 300 and above, earned at Union, must be included in any twenty-four hour major; at least twelve semester hours 300 and above (evenly distributed in the two fields if this is a combined major), earned at Union, must be included in a thirty-hour major; at least eighteen semester hours 300 and above earned at Union must be included in an area.

8. Participation in annual Assessment Day testing activities. This is required each year of all senior students. Those with special problems may contact the Vice President for Academic Affairs for waiver.
9. At registration each senior must specify the tentative date on which he expects to graduate.
10. Advice in arranging schedules and choosing courses is always given gladly; however, each student is responsible for completing all requirements.

Associate Degree — see specific program requirements

Combined Degrees

The bachelor degrees may be granted to students who have completed three years of work at Union College and one year of work in an accredited professional school with the following provisions:

1. The work in the professional school must continue the curriculum in which the student has been enrolled at Union College (pre-law, pre-dentistry, pre-medicine, etc.)
2. The student must have completed satisfactorily the minimum requirements for three years of pre-professional work at Union College (ninety-six semester hours with a quality-point standing of at least 2.00) and also the general college requirements for graduation, including the foreign language requirement if a B.A. is desired.
3. The student must have completed satisfactorily the minimum requirements for one year of study at the accredited professional school in which he is enrolled. The number of credits at the end of the four years of study must total at least 128 semester hours.

Degrees with Distinction

Honors in Scholarship are recorded on the diplomas of the students earning them. There are three grades of honors designated respectively: *cum laude, magna cum laude,* and *summa cum laude.* These honors are conferred at graduation upon students who satisfy the following conditions of scholarship:

The honor of *cum laude* is awarded to those students who have earned an average standing of 3.5 overall and at Union.

The honor of *magna cum laude* is awarded to the students who have earned an average standing of 3.75 overall and at Union.

The honor of *suma cum laude* is awarded to those students who have earned an average standing of 3.9 overall and at Union.

Students coming from other colleges may receive honors on completing 61 semester hours of resident study and satisfying the condition of the scholarship prescribed by the faculty provided they also furnish such evidence c high scholarship in the institution from whic they come as may, in the judgment of the fac ulty, entitle them to become candidates fc honors under the regulations.

As a reward for excellence in scholarship an to promote diligence in study and encourag high ideals, the honorary scholastic fraternit of Iota Sigma Nu was founded on May 26, 193(Membership is open upon election to:

(a) All who have met the requirements fc graduation with honors.

(b) All students who have at least 74 hou with a 3.2 quality point standing or 10 hours with a 3.0 quality point standin and who have completed a minimum c two years (64 semester hours) in residenc at Union College.

ACADEMIC SERVICES

Career Planning, Academic Advising, and Placement Services

Upon Admission to Union College, students will begin a process whereby career planners and faculty advisors assist them to articulate their career goals, to select academic courses of study appropriate to those goals, and to achieve suitable placement upon completion of their studies.

Academic Advising is considered to be one of the two most important tasks of the faculty—teaching being first. Each student will meet with an academic advisor on an individual basis in order to select courses for each semester. The advisor is also available to help each student learn how to use the resources at Union College and to find solutions to problems which the student might have.

Each student is assigned an academic advisor in his/her chosen field of study. Students who have not made a vocational or professional choice will also be assigned an academic advisor. Upon declaring a major, an advisor in that field will be assigned.

A Career Counselor is also available to assist students. Inventories, workshops, and individual sessions are used to help students in identifying areas of interest or study and work.

The Career Counselor also assists seniors ir preparing a placement file and coordinates em ployment opportunities. This placement file i sent, at no cost, to prospective employers a the student's request.

Undecided Majors

Students who have not made a vocational o professional choice will be assigned an advisor Once a choice is made, the student will be reas signed to a faculty advisor in the appropriat discipline.

Planned Curriculum

During the last semester of the sophomor year, a planned curriculum will be developec by the student's advisor and the Office of the Registrar at the student's request. This is ar agreement between the College and the stu dent. Once the curriculum has been completec only changes approved by the Registrar are binding on the College.

Learning Lab

The Learning Lab offers assistance to students in most freshmen and sophomore level courses. Tutoring is done by trained peer tutors, selected through faculty recommenda-

ion, superior academic achievement and personal interviews. Computer assisted instruction is also available in English mechanics and mathematics and in preparing for the various professional examinations. Students should request help as soon as they experience difficulty in a class. There is no fee for using the Learning Lab.

For more information on academic advisement, special services, and counseling, contact the Director of Special Programs.

Computer Facilities

The College has a variety of computers available for student and faculty use, including an HP-3000 minicomputer, an AT&T super-microcomputer, and numerous microcomputer systems. The AT&T computer is connected to BITNET through a cooperative agreement with the University of Kentucky.

Two microcomputer laboratories on campus are used for instruction and are available for student and faculty use when not being used for classes. One is located in the Mahlon A. Miller Science Center and contains seven Apple IIe's and a terminal to the AT&T system. The other is in Centennial Hall and contains twelve Radio Shack microcomputers, a Macintosh microcomputer, sixteen IBM-compatible microcomputers, and six terminals connected to the HP minicomputer; most of the microcomputers are connected to either the HP or the AT&T system. This laboratory is operated by the Computer Information Systems Program and is staffed by student laboratory assistants. The lab is open for general use approximately thirty hours each week, primarily late afternoons and evenings — Monday through Thursday and Saturday afternoons.

The Computer Information Systems Program also operates the academic HP minicomputer and the AT&T system. CIS majors have the opportunity to gain hands-on experience in the operation of the systems. In addition, the CIS Program has an 80386 microcomputer system for use in upper division CIS classes; on this system, students in systems analysis and design classes will use the CASE tool Excelerator, and students in the operating systems course will use UNIX.

Additional microcomputers are available for use in other areas. A Macintosh and an Apple IIGS are used in the Learning Lab for tutoring and remedial instruction. A Macintosh is used by the Journalism Program in the production of the student newspaper and yearbook and in the teaching of Journalism classes. An IBM PTS is used in the Office Administration classes. An Apple IIGS is used by the Music Department in the teaching of its classes, and Apple IIe's are available for use in the various science laboratories.

Most administrative offices use microcomputers connected to the College's administrative minicomputer to assist them in their duties.

Developmental Studies

The Developmental Studies Program is designed to help students become more successful in their college studies. Through this program Union College has recognized that each entering student has different strengths and weaknesses. **It is the sum total of these strengths and weaknesses that leads to either success or failure in college study.** Some of the common weaknesses are in reading, writing, and math skills, as well as in personal skills such as time management, goal setting, and decision making.

The College has developed mandatory courses for students who score

1. below 80% on the English Placement Test,
2. below 80% on the Math Placement Test,
3. below 10th grade on the Nelson-Denny Reading Test,
4. below 12 on the ACT.

Students with composite scores of below 20 on the ACT or 900 on the verbal and quantitative sections of the SAT are required to take these placement tests before being assigned an advisor and registering for classes.

Students who are not required to take the developmental courses listed below may elect to take one or more of them after consultation with their academic advisor.

The mandatory courses include the following four courses, each carrying 3 semester hours of credit:

1. **English 110** — is designed to provide training in college-level language skills and to prepare students for English 111 and other introductory courses.
2. **Mathematics 100** — is intended for students who need to improve their arithmetic and elementary algebra skills prior to taking other mathematics courses or courses requiring quantitative reasoning.

3. **General Studies 101** — is designed to help students increase their reading level to more effectively handle the reading requirement in college texts. The student's reading level will be evaluated thoroughly to determine the entry level.
4. **General Studies 102** — is designed to increase students' academic and personal confidence through two components. The first will aid students to improve their study and time-management abilities. The second will present decision-making skills that will enable students to clarify their goals, values and interests, allowing them to make effective decisions throughout their life.

Community Education

Community Education at Union College provides courses and workshops that satisfy a wide range of educational needs for adults. These courses provide an opportunity to study a variety of subjects for personal enrichment, to acquire skills for career advancement, or to enjoy cultural and leisure activities. Community Education emphasizes learning as a lifelong experience. The close student-to-instructor rapport that characterizes Union College adds an exciting dimension to this learning experience. Community Education attempts to meet the special educational needs of adults through a variety of forums, e.g., short courses (including Elderhostel), seminars, workshops, and conferences. The program also provides opportunities for students to earn continuing education credits for short courses and college credit for telecourses available through Kentucky Educational Television.

Adult Education

The adult education program includes the Adult Basic Education unit and the JTPA (Job Training Partnership Act) unit which Union College sponsors in conjunction with the Kentucky Department of Education. These programs enable adults who have not received their high school diplomas to prepare for the GED. In addition, Union College co-sponsors the Adult Literacy program with the Kentucky Literacy Commission.

Library and Learning Resource Center

The Abigail E. Weeks Memorial Library houses a collection of approximately 80,000 books and other materials in a newly expanded facility. More than 350 periodicals are regularly received, along with indexing services to facilitate their use. The stacks are open for use by all students. There are a variety of study spaces providing seating for over 300 students, some in rooms designed for group study. The Library staff places first priority on helping students use both the materials and the equipment.

The College's library contains several specialized collections. There is a special collection of over 1,000 volumes devoted to Abraham Lincoln and the Civil War. The Library is also a selective depository for U.S. government publications. In addition, there is a Curriculum Center for education majors, a Music Library with a collection of more than 3,500 recordings and musical scores, and a Science Library.

The Learning Resource Center is housed within the Library and supplements the printed materials of the Library with a broad range of non-print media. This includes slides, audiotapes, videotapes, filmstrips, kits, and computer software. The LRC provides educational materials for classroom use and individualized study. The LRC staff offers individual or group instruction to students and faculty in the use of equipment and materials.

CURRICULUM

MAJORS AND DEGREE PROGRAMS

A college major is actually a means to an end — the means by which a student prepares for a future career, entrance into graduate school, or some change in life style. Union College offers a wide range of majors and minors, as part of the Bachelor's degree and a number c certificate and 2-year Associate degree pr grams for those not needing a full 4-year d gree.

Degree Area	Major	Minor	Associate Degree	Area of Concentration	Program
APPLIED SCIENCE DIVISION					
Department of Business					
Accounting	X	X	X		
Business Administration	X	X	X		
Business Education	X				
Business and Music	X				
Computer Information Systems	X	X	X		
Economics		X			
Marketing		X			
Medical Secretarial Administration			X		
Office Administration	X	X	X		X
Department of Education					
Early Elementary Education	X				
Elementary Education			X		
Middle Grades Education	X				
Secondary Education	X				
Vocational Education			X		
Department of Health and Physical Education					
Health Education		X			
Physical Education	X				
Military Science					X
HUMANITIES DIVISION					
Department of English and Foreign Languages					
English	X	X		X	
Journalism					X
Department of Music and Fine Arts					
Church Music	X				
Drama		X			
Drama and Speech	X	X			
Music	X	X			
Music and Business	X				
Music Education	X				
Department of Religion and Philosophy					
Christian Education	X				
Philosophy		X			
Philosophy/Religion	X				
Religion	X	X			

Degree Area	Major	Minor	Associate Degree	Area of Concentration	Program
NATURAL SCIENCE DIVISION					
Biology	X	X			
Chemistry	X	X			
Computer Science		X			
Environmental Studies		X			
Mathematics	X	X			
Physics	X	X			
Pre-Dentistry					X
Pre-Engineering					X
Pre-Medical Technology					X
Pre-Medicine					X
Pre-Optometry					X
Pre-Pharmacy					X
Pre-Physical Therapy					X
Pre-Veterinary Medicine					X
Science Education	X				
Mathematics-Physical Science				X	
Science				X	
SOCIAL SCIENCE DIVISION					
Appalachian Semester					X
Appalachian Studies		X			
History	X	X			
History and Political Science	X				
Political Science		X			
Pre-Law					X
Psychology	X	X			
Social Studies				X	
Sociology	X	X			

GRADUATE, COOPERATIVE, AND INTERDISCIPLINARY PROGRAMS

Graduate Program in Education

Union College offers a unique graduate program designed for in-service teachers in the public schools. The College grants the 5th year certificate for Kentucky teachers, the M.A. degree in Education in the following areas: reading specialist, elementary education, middle school education, gifted education, kindergarten education, and secondary education with emphasis in either health, history, science, social science, psychology or sociology.

Work beyond the Masters level leading to certification as an elementary or secondary school principal, supervisor of instruction, director of pupil personnel as well as Rank I (30 hours beyond M.A.) is available. Many courses are offered off-campus.

Qualified holders of the Bachelor's degree should contact the Dean of Graduate Academic Affairs for brochures, catalogs, and information about the graduate program.

Cooperative Programs Bellarmine College (Nursing)

A cooperative arrangement between Union College and Bellarmine College provides registered nurses from the eastern Kentucky area an opportunity to pursue a bachelor's degree in nursing at Union College. Selected liberal arts and elective courses are taught by Union College faculty; professional nursing courses are taught by Bellarmine College faculty at centers in eastern and central Kentucky locations. Clinical experiences may be offered in the area.

The B.S.N. Degree is conferred by Bellarmine College. This program offers the registered nurse an opportunity to receive a B.S.N. while continuing to work in eastern Kentucky. Estimated completion time for the program is four years on a part-time basis.

Interested persons should file Union College and Bellarmine applications. An official transcript and a copy of the RN license should accompany the application to Bellarmine. Students must meet the general standards of both Colleges.

For more information, contact the Admissions Office at Bellarmine College at 1-800-633-5114.

Sue Bennett College

Union College also has a cooperative agree ment with Sue Bennett College, a private tw year United Methodist College located in Lor don, Kentucky (25 miles from Union's can pus). Under the agreement, Union offe junior, senior, and graduate level courses i education and business on the Sue Benne campus. This agreement also facilitates the a ticulation of transfer credit and provides scho arships for qualified Sue Bennett students wh transfer to Union.

Army ROTC

This is a program which provides colleg trained officers for the Regular United State Army, U.S. Army Reserve and U.S. Army Na tional Guard. Union College offers both th Basic and Advanced courses to qualified stu dents. This program is affiliated with Easter Kentucky University Army ROTC and specif information can be obtained by making an ap pointment with the ROTC Representative lo cated on the second floor of the Physica Education Building. (See Applied Science D vision for curriculum.)

Pre-Professional Programs

Union College offers several pre-profes sional programs that are affiliated with othe institutions and agencies. These include Den tistry, Engineering, Medical Technology, Mec icine, Optometry, Pharmacy, Physica Therapy, and Veterinary Medicine. Colleg personnel are available in the Natural Scienc Division to advise and counsel students wh are interested in these programs. More specifi information can be obtained in the Natural Sc ence Division section of this catalog.

Appalachian Studies

Reflecting the College's primary mission o improving the quality of life of the Appalachia people, Union offers a multi-faceted Appala chian Studies Program. One or more compo nents of the program should be of interest t all students. The program seeks to develop a appreciation of the people, culture, and socio economic conditions of the mountain area; t provide opportunities for direct service, re

earch and personal experience in the region; o provide the skills and critical understanding eeded to work in this area; and to help the tudent develop an understanding of himself nd others.

The program at present consists of the Appalachian Semester outlined in detail below, nd of various academic courses, identified in ppropriate departmental and division course stings. The student will find an interdisciplinary approach to the history, politics, music, atural resources, economics, and other aspects of the region, which will stand him in ood stead no matter where he or she may live ter.

Appalachian Semester

he Appalachian Semester is a unique interisciplinary academic program in which maure second semester sophomore, junior, and enior students from Union College and other nstitutions throughout the United States deote their full time to studying the Appalachian egion— its strengths, problems and chalenges. Students earn a total of fifteen semester ours of academic credit. Nine hours of credit re offered in sociology at the upper division level, and six hours are offered at either the lower or upper division level for field work in a variety of disciplines. Field work may be either experiential learning of a regional nature in a local service agency or other institutional setting, or it may be directed study in the region at large. The program is designed to combine interdisciplinary classroom experiences and on-the-scene community experiences into a "living-learning" situation where total involvement of students and faculty may take place.

Opportunities are provided to discuss the local and regional leaders assets and problems of the region, and field trips are coordinated with seminar discussions in order to involve participants on the spot with current regional issues. Following an orientation of approximately four weeks, students leave the campus and learn through independent study or work in a variety of private and public service settings.

Course descriptions are included in the curriculum section of this catalog. Detailed information and application forms are available from the Coordinator, Appalachian Semester, Union College.

THE LIBERAL EDUCATION CORE

I. BASIC COMPETENCIES **12-13 h**

A. FRESHMAN COMPOSITION 6 h
ENGL 111 Freshman Composition I
ENGL 112 Freshman Composition and Literature

B. MATHEMATICS 3-4 h
BHSC 245 Basic Statistics: Theory and Application
MATH 108 Intermediate Algebra
MATH 111 College Algebra & Trigonometry
MATH 203 Structure of the Number System

C. PHYSICAL WELL BEING 3 h
HLTH 131 First Aid & Safety Education
HLTH 270 Personal & Community Health
OR
Three Physical Education Activity Courses

II. HUMANITIES **12-13 h**

A. LITERATURE 3 h
ENGL 212 Western Literature

B. FINE ARTS APPRECIATION 3-4 h
ART 132 Introduction to Art
ART 273 Art History
DRAM 131 Introduction to the Theatre
MUSIC 121 Introduction to Music
MUSIC 161 or 162 Foundations of Music

C. LITERATURE/FINE ARTS ELECTIVE 3 h
An additional course from B above or one of:
ENGL 221-222 Survey of English Literature
ENGL 231-232 Survey of American Literature

D. RELIGION AND PHILOSOPHY 3 h
PHIL 151 Introduction to Philosophy
RLGN 111 Old Testament History, Literature & Interpretation
RLGN 112 New Testament History, Literature & Interpretation
RLGN 131 World Religions

III. HISTORY, SOCIAL & BEHAVIORAL SCIENCES **9 h**

A. WORLD HISTORY 3 h
HIST 111 World History to 1500
HIST 112 World History since 1500

B. HISTORY ELECTIVE 3 h
An additional course from A above or one of:
HIST 201 U.S. History to 1865
HIST 202 U.S. History since 1865

C. SOCIAL SCIENCE — STRUCTURE ELECTIVE 3 h
ANTH 221 Introduction to Cultural Anthropology
ECON 153 Principles of Economics I
GEOG 101 Introduction to Geography
PLSC 101 American National Government
PSYH 111 Introduction to Psychology
SOCI 131 Introduction to Sociology

IV. NATURAL SCIENCES **7-8 hrs.**

Choose two courses from areas A, B, or C; each of the courses must be in a separate area and one must include a lab.

A. BIOLOGICAL SCIENCE 3-4 hrs.
- BIOL 109 Elements of Biology 3
- BIOL 111 Introduction to Biology 4

B. PHYSICAL SCIENCE 3 hrs.
- CHEM 111 General Chemistry 3
- PHYS 111 Elements of General Physics 3
- PHYS 112 Elements of General Physics 3

C. ENVIRONMENTAL/EARTH SCIENCE 3-4 hrs.
- ENVS 101 Man & the Environment 3
- ENVS 110 Physical Systems of the Environment 4
- PHYS 105 Astronomy 4

D. LABORATORY EXPERIENCE 1 hr.

If not already included with a course in A, B, or C above.
- BIOL 110 Elements of Biology Laboratory ..... 1 (BIOL 109)
- CHEM 131 General Chemistry Laboratory ..... 1 (CHEM 111)
- PHYS 113 Elements of General Physics Laboratory ..... 1 (PHYS 111)
- PHYS 114 Elements of General Physics Laboratory ..... 1 (PHYS 112)

V. COMPLETION OF CORE **6-7 hrs.**

Select a course from two of the following 3 areas.

A. COMMUNICATIONS/LANGUAGES 3 hrs.
- FREN 111 or 112 Elementary French 3
- GRMN 111 or 112 Elementary German 3
- SPAN 111 or 112 Elementary Spanish 3
- SPCH 131 Fundamentals of Speech 3
- SPCH 231 Oral Interpretation of Literature 3

B. SOCIAL SCIENCE — PROBLEMS ELECTIVES 3 hrs.
- ECON 154 Principles of Economics II 3
- GEOG 241 Geography of Appalachia 3
- HIST 233 History of Appalachia 3
- PLSC 231 International Politics 3
- SOCI 241 Sociology of Appalachia 3
- SOCI 251 Current Socio-Economic Problems 3
- SOCI 271 Marriage & the Family 3

C. NATURAL SCIENCE 3-4 hrs.

Select a course from the Natural Science Division that is in a discipline (Biology, Chemistry, Environmental Studies, Physics) not already used to satisfy Section IV.

Students are expected to complete this core during their Freshman-Sophomore years. Some majors ıch as education require specific courses. Consult your advisor.

ACADEMIC DIVISIONS

DIVISION OF APPLIED SCIENCES

William Bernhardt, *Chairperson*
Department of Business Department of Education
Department of Health & Physical Education
Military Science (ROTC Program)

I. DEPARTMENT OF BUSINESS

Paula J. Allen, *Department Head*
Accounting — Business Administration — Business Education
Computer Information Systems — Economics — Office Administration

BACHELOR OF SCIENCE DEGREES IN BUSINESS

In addition to the general college requirements, all candidates for the Bachelor's degree must complete the following courses in one of the major fields listed below. Students with a major or minor in Business must have a 2.0 average for all courses in each major or minor. (Students who choose to complete the foreign language requirement may elect to receive a Bachelor of Arts degree.)

Common Courses Required of All Candidates		*Semester Hours*
ACTG 271, 272	Principles of Accounting I & II	6
BUAD 311 or 312	Business Law	3
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153, 154	Principles of Economics I & II	6
		27

and, as applicable:

Accounting Major		*Semester Hours*
ACTG 331	Cost Accounting	3
ACTG 371, 372	Intermediate Accounting I & II	6
ACTG 376	Tax Accounting	3
ACTG 430	Accounting Theory	3
ACTG 433	Auditing	3
ACTG 471	Advanced Accounting	3
BUAD 311 or 312	Business Law (in addition to core requirement)	3
COMP 221 or	Business Application Programming I	3
COMP 235	RPG Programming	3
OFAD 302	Business Communications	3
		30

Business Administration Major		*Semester Hours*
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 372	Personnel Management	3
BUAD 451	Business Policy	3
COMP 221 or	Business Application Programming I	3
COMP 231 or	BASIC Programming	3
COMP 235	RPG Programming	3
OFAD 302	Business Communications	3
	Electives from the Department of Business	12
		27

mputer Information Systems Major *Semester Hours*

SC 245	Basic Statistics: Theory and Application	3
MP 221, 222	Business Application Programming I and II	6
MP 331	Structured Systems Analysis	3
MP 332	Structured Systems Design	3
MP 425	Applied Software Development Project	3
MP 441	Data Bases	3
	Computer Elective (200 level)	2 or 3
	Computer Elective (300 or 400 level)	3
ATH 108, 111 or 241	Mathematics Course	3 or 4
d one of:		
AD 301 or	Business English: Theory and Applications	
YS 111 and 113 or	Elements of General Physics (with lab)	
YS 211 and 213	General Physics (with lab)	3, 4, or 5
		32-35

fice Administration Major *Semester Hours*

TG 170	The Accounting Cycle	3
ED 331	Office Practice	4
AD 112	Intermediate Typewriting	3
AD 122	Intermediate Shorthand	3
AD 211	Advanced Typewriting	3
AD 301	Business English: Theory and Applications	3
AD 302	Business Communications	3
AD 361	Office Management	3
	Elective from the Department of Business	3
		28

siness and Music Major *Semester Hours*

AD 272	Salesmanship	3
JSC 161, 162	Foundations of Music	8
JSC 261, 262	Harmony	6
JSC 111-412	Applied Music	8
JSC 322	Music History	3
JSC 171, 172,	String, Woodwind, Piano, Brass and Percussion Classes	3
73, 175, 176	(Choice of any 3)	
AD 302	Business Communications	3
	Upper division business elective	3
	Field Placement	3-10
		40-47

CHELOR OF SCIENCE DEGREE IN BUSINESS EDUCATION

dents should see the Education Department section for Certification Requirements.

aching Major in Basic Business *Semester Hours*

TG 271, 272	Principles of Accounting I & II	6
AD 311 or 312	Business Law	3
AD 352	Principles of Management	3
ED 331 or	Office Practice	4
AD 287	Office Internship	3
ED 362	Methods of Teaching Basic Business Subjects	3
MP 131	Introduction to Computer Information Systems	3
ON 153 or 154	Principles of Economics	3
AD 112, 211	Intermediate and Advanced Typewriting	6
AD 302	Business Communications	3
		33-34

Teaching Major in Secretarial Skills		Semester Hours
ACTG 271 or 272	Principles of Accounting I or II	3
BUED 331 or	Office Practice	4
OFAD 287	Office Internship	3
BUED 361	Methods of Teaching Secretarial Business Subjects	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics I or II	3
OFAD 112, 211	Intermediate and Advanced Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 302	Business Communications	3
	Business Elective	3
		33-34

For endorsements in other business subjects, see the head of the Education Department.

ASSOCIATE OF APPLIED SCIENCE DEGREES IN BUSINESS

The following two-year programs lead to the award of the A.A.S. degrees in the emphasis indicated. Union College provides a "career ladder" approach to learning in that students who complete these degrees may immediately apply the hours earned on the two-year degree toward a Bachelor's degree, or return to college later with guarantee that the credits previously earned at Union will apply toward the 4-year degree.

Common Courses Required of All Candidates		Semester Hours
ACTG 271	Principles of Accounting I	3
BUED 105	Mathematics Applied to Business	1
COMP 105	Introduction to Microcomputer Packages	2
COMP 131	Introduction to Computer Information Systems	3
ECON 153	Principles of Economics I	3
ENGL 111	Freshman Composition I	3
ENGL 112	Freshman Composition and Literature	3
OFAD 302	Business Communications	3
	Humanities General Requirement	9
	Social Science General Requirement	3
		33

and, as applicable:

Accounting Emphasis (AAS)		Semester Hours
ACTG 272	Principles of Accounting II	3
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 311 or 312	Business Law	3
ECON 154	Principles of Economics II	3
	Accounting Electives	9
	Natural Science General Requirement	4
	Free (Non-Business) Electives	6
		31

Business Administration Emphasis (AAS)		Semester Hours
ACTG 272	Principles of Accounting II	3
BUAD 311 or 312	Business Law	3
ECON 154	Principles of Economics II	3
OFAD 111	Elementary Typewriting (or equivalent)	3
	Natural Science General Requirement	4
	Business Electives	9
	Free (Non-Business) Electives	6
		31

Computer Information Systems Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
BHSC 245	Basic Statistics: Theory and Application	3
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
ECON 154	Principles of Economics II	3
MATH 108, 111 or 241	Mathematics Course	3 or 4
OFAD 105	Keyboarding	1
	Computer Elective (200 level)	2 or 3
	Computer Elective (300 or 400 level)	3
	Free Electives	5
		32-34

Medical Secretarial Administration Emphasis (AAS)		*Semester Hours*
BIOL 151	Medical Terminology	2
BUED 331	Office Practice	4
HLTH 131	First Aid and Safety Education	3
HLTH 270	Personal and Community Health	3
HLTH 340	Physiology and Anatomy	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
		30

Office Administration Emphasis (AAS)		*Semester Hours*
ACTG 170	The Accounting Cycle	3
BUED 331	Office Practice	4
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
	Natural Science General Requirement	4
	Free Electives	6
		32

CERTIFICATE IN OFFICE ADMINISTRATION (ONE-YEAR PROGRAM)		*Semester Hours*
ACTG 271	Principles of Accounting I	3
BUAD 151	Introduction to Business	3
BUED 331	Office Practice	4
ENGL 111	Freshman Composition I	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 301 or	Business English: Theory and Applications	3
OFAD 302	Business Communications	3
	Elective	4
		32

MINORS AVAILABLE TO ALL STUDENTS

Accounting — Twenty-one semester hours in Accounting at 200 level and above.

Business Administration — Accounting 271-272, Business Administration 311 and 352. Computer Information Systems 131, Economics 153, and three hours of Business electives.

Computer Information Systems — Twenty-one semester hours consisting of the following: Accounting 271, Computer Information Systems 221, 222, and 331 and at least nine additional hours in Computer Information Systems courses numbered 200 or above (at least three of these hours must be numbered 300 or above).

Economics — Twenty-one semester hours consisting of the following: Economics 153, 154, 363; Behavioral Sciences 245; Business Education 353; Business Administration 351; and History 241 or Economics 251.

Marketing — Twenty-three to twenty-four semester hours consisting of the following: Business Administration 272, 321, 370, and 421; Business Education 353; Computer Information Systems 105 or 241; and Economics 153 and 154.

Office Administration — Twenty-one semester hours including Office Administration 112, 122, 301, 361, Business Education 331, and six hours of Office Administration electives.

ACCOUNTING

Accounting 170. The Accounting Cycle. **(S)(3)**
This course is designed for students who have not studied accounting in high school or who need basic remedial studies in accounting. Subjects covered include journalizing, posting, worksheets, adjusting and closing entries. No prerequisites.

Accounting 271. Principles of Accounting I. **(F)(3)**
Discussion of the concept of double-entry accounting. Introduction to the basic procedures in the accounting cycle, receivables, payables, inventories and other systems. *Prerequisite:* Business Education 105.

Accounting 272. Principles of Accounting II. **(S)(3)**
A continuation of Accounting 271, this course covers accounting procedures relative to partnerships, corporations, budgets, costing and financial report generation. *Prerequisite:* Accounting 271.

Accounting 331. Cost Accounting. **(F)(3)**
Special topics in job order and process cost for materials, labor, and overhead with variable and fixed portions. Budgeting and variances from budget are also covered. *Prerequisite:* Accounting 272.

Accounting 371. Intermediate Accounting I. **(F)(3)**
Accounting topics including the income statement, balance sheet and change in owners' equity statements. Cash, receivables, inventories, plant, investments and intangible assets are also covered. *Prerequisite:* Accounting 272.

Accounting 372. Intermediate Accounting II. **(S)(3)**
Continuation of Accounting 371 covering current liabilities, contingent liabilities, long-term liabilities, accounting for income taxes, and owners' equity. Statement of Change in Financial Position, financial statement analysis and the impact of changing prices are also covered. *Prerequisite:* Accounting 371.

Accounting 376. Tax Accounting. **(S)(3)**
Problems of federal taxes for individuals, partnerships, and corporations are reviewed in depth. *Prerequisite:* Accounting 272.

Accounting 430. Accounting Theory. **(F)(3)**
Covers current accounting literature, including publications of the American Institute of Certified Public Accountants (AICPA), the Financial Accounting Standards Board (FASB), and the Securities and Exchange Commission (SEC). *Prerequisite:* Accounting 372.

Accounting 433. Auditing. **(S)(3)**
Topics covered include discussion of the ethics and liability of the auditor, verification, analysis, interpretation of accounting records, issuance of audit reports and other reports by CPA's. *Prerequisite:* Accounting 372.

Accounting 471. Advanced Accounting. **(S)(3)**
Advanced in-depth discussion of accounting for joint ventures, consolidated statements, intercompany transactions, partnerships, and not-for-profit accounting. *Prerequisite:* Accounting 372.

BUSINESS ADMINISTRATION

Business Administration 151. Introduction to Business. **(F)(3)**
Forms of business ownership, marketing, personnel management, finance, and government regulations are discussed in an overview of organizations.

Business Administration 272. Salesmanship. **(S)(3)**
The interpretation of sales techniques and methods, prospecting customers, interviews, sales presentations, demonstrations, and closing the sale are presented.

Business Administration 311-312. Business Law. **(F,S)(3)**
An overview of laws dealing with contracts, agency, employment, bailment, transportation, real and personal property, leases, and bankruptcy.

Business Administration 321. Principles of Marketing. (F)(3)
Study of the movement of goods from producer to consumer and an examination of the functions of the marketing process, marketing institutions, channels of distribution, legal aspects, and policy considerations.

Business Administration 351. Principles of Finance. (F)(3)
The principal objective of this course is to introduce managerial finance as a functional area of business, including financial analysis, working capital practices, capital budgeting, corporate valuation, cost of capital and capital structure. *Prerequisite:* Accounting 271.

Business Administration 352. Principles of Management. (F)(3)
This course introduces students to the development of organization plans and policies, as well as providing an exposure to basic theoretical developments in management thought over the last one hundred years. Particular attention will be given to the topics of organizational design, control, quantitative techniques of management operations and theories of leadership.

Business Administration 370. Advertising. (F)(3)
An overview of the social, economic, and marketing environment in which advertising functions. This course will provide an in-depth coverage of advertising activities as they relate to consumer-driven mass media marketing activities. The course will focus on advertising planning and management as well as media strategies available to organizations. Although an understanding of marketing in general is helpful, Business Administration 321 is not a prerequisite.

Business Administration 371. Insurance. (S)(3)
Insurance contracts with fields of insurance, including fire, marine, casualty, social, disability, life, and property. (Odd years only.)

Business Administration 372. Personnel Management. (S)(3)
Using a system-process model, this course discusses the various subsystems (recruitment, selection, compensation, task specification, etc.) which fall under the responsibility of the personnel management function. The subsystems are designed to provide for the efficient and effective utilization of human resources in business concerns. *Prerequisite:* Business Administration 352.

Business Administration 404. Investments. (S)(3)
Intermediate discussion of stocks, bonds, and other investments. Analysis of the theories of investing, return and risk valuation of stock. Course will culminate in the management of a portfolio for differing investment alternatives. (Even years only.) *Prerequisite:* Business Administration 351.

Business Administration 421. Transportation and Physical Distribution. (F)(3)
This course is an introductory indepth study of the broad field of Transportation and Business logistics. The course will elaborate upon material presented in principles of marketing. However, a major emphasis will be the regulatory environments of each of the major modes of transport: Rail, motor, water, air, and pipeline. Emphasis will be placed on the crucial nature of distribution and handling of materials in domestic and international markets. A systems approach to transportation, warehousing, material handling, packaging, etc. will be followed. *Prerequisites:* Business Administration 321 or permission of the instructor.

Business Administration 451. Business Policy. (S)(3)
This course serves as a "capstone course" which attempts to bring together knowledge acquired in all of the functional areas of business (management, marketing, finance, accounting, etc.) in a case analysis situation. A strategic decision-making model will be presented as the basis for the alternative courses of action, and the implementation of the strategy chosen. *Prerequisites:* Senior status in the Business Administration program and the successful completion of Accounting 272, Business Administration 321, 351, 352, and 372.

BUSINESS EDUCATION

Business Education 105. Mathematics Applied to Business. (F,S)(1)
The application of basic mathematics to business operations including: Markups, markdowns, interest and discounts, bank reconciliation and graphing.

Business Education 331. Office Practice. (S)(4)
Emphasis is placed on the development of office proficiency, records management, internal and external office communications, information processing and administrative support services. Laboratory required. *Prerequisite:* Office Administration 112.

Business Education 353. Consumer Economics. (S)(3
This course is designed to investigate consumer behavior, both from the point of view of selle and buyer. It focuses on market forces of supply and demand, which determine price. How consumers maximize utility and producers maximize profit is studied, and different market strat egies are examined.

Business Education 361. Methods of Teaching Secretarial Business Subjects. (On demand) (3
A study of basic dimensions of methods, materials, and objectives in teaching secretarial subject in the secondary school. Discussion includes teaching strategies such as questioning, lecturing problem-solving, constructing lesson plans, constructing valid and reliable tests, interpreting tes scores, and presenting lectures on video tapes. *Prerequisites:* Admission to Teacher Educatior Program, Office Administration 112 and 122 and Junior standing. Students must have at leas twelve hours from the Union College Department of Business. Transfer students must have permission of the instructor to take this course.

Business Education 362. Methods of Teaching Basic Business Subjects. (F)(3
A study of the methods, materials, and objectives in teaching basic business subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem solving, constructing lesson objectives, constructing valid and reliable tests, interpreting tes scores, and presenting lectures on video tape. *Prerequisites:* Admission to Teacher Educatior Program and Junior standing. Students must have at least twelve hours from the Union College Department of Business. Transfer students must have permission of the instructor to take this course.

COMPUTER INFORMATION SYSTEMS

Computer Information Systems 105. Introduction to Microcomputer Packages. (F,S)(2
A study and evaluation of the major packages available for microcomputers, including word processing, spreadsheet, graphics and data base packages.

Computer Information Systems 121. BASIC Programming. (F,S)(3
A study of the BASIC programming language including problem definition, flowcharting, and solving problems that are adaptable to business and/or science applications. Laboratory work designed to illustrate the basic principles of structured programming in BASIC will provide hands on experience on microcomputers. *Prerequisites:* Business Education 105 or any Mathematics course numbered 108 or above.

Computer Information Systems 131. Introduction to Computer Information Systems. (F,S)(3
Survey of the fundamental computer concepts, hardware, and operations, especially as applied in a business setting. In the second half of the term, students will be introduced to the fundamentals of programming concepts and documentation standards, using the BASIC programming language as a model.

Computer Information Systems 221. Business Application Programming I. (F)(3
A study of the fundamental principles of algorithm development and structured computer programming used in solving business information systems problems, including an introduction to design and implementation documentation used by industry. Major topics include control structures, elementary data structures, program design techniques, and sequential files. A subset of COBOL is used as the programming language. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 271.

Computer Information Systems 222. Business Application Programming II. (S)(3
A continuation of Business Application Programming I. A study of systems of programs and the techniques for their design and development. Major topics include modular design of algorithms uses of bulk storage devices, random files, master-file maintenance systems, advanced report writing and business algorithms, dynamic data structures, and subprograms. *Prerequisite:* Computer Information Systems 221.

Computer Information Systems 235. RPG Programming. (S)(3
A study of the RPG II programming language includes problem definition, flowcharting, and the solution of problems that are adaptable to business applications. *Prerequisites:* Computer Information Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 271.

Computer Information Systems 241. Microcomputer Applications in Business. (S)(3
A survey of computer applications of information needs in business, of microcomputers, and of information systems that use these needs and a review of the standard software packages available to support a microcomputer-based executive workstation, including hands-on work with word

and text processors, electronic spreadsheets, file and data base management systems, graphics packages, and accounting and other common application packages. *Prerequisites:* Computer Information Systems 131 and Accounting 271.

)mputer Information Systems 250. Scientific Programming in FORTRAN. **(F)(3)**
A study of the fundamental principals of algorithm development and structured programming used to solve problems from the areas of mathematics, the physical sciences, and engineering, including an introduction to design and implementation documentation. Major topics are debugging, control structures, and elementary data structures. FORTRAN is used as the programming language. *Prerequisites:* Computer Information Systems 131 and one of the following Computer Information Systems 221 or Mathematics 241.

)mputer Information Systems 310. Introduction to Computer Architecture. **(S)(3)**
A study of the fundamental concepts and terminology of computer architecture (including assembly languages) with emphasis on the relationships among hardware, architecture, systems software, and applications software. (Even years only.) *Prerequisite:* Computer Information Systems 221 or 250.

)mputer Information Systems 315. Operating Systems. **(S)(3)**
Survey of the major components of operating systems, comparing and contrasting various systems including batch, time sharing, and microcomputer systems. (Odd years only.) *Prerequisite:* Computer Information Systems 221 or 250.

)mputer Information Systems 331. Structured Systems Analysis. **(F)(3)**
A study of the system development life cycle emphasizing documentation and communication aids, interpersonal approaches and techniques used in the analysis of systems, and physical and logical specification of a system. This course involves extensive writing; thus, students are expected to be familiar with basic writing skills. *Prerequisites:* Computer Information Systems 221 and Accounting 271.

)mputer Information Systems 332. Structured Systems Design. **(S)(3)**
(A continuation of Structured Systems Analysis.) A study of the structured design techniques used in designing new logical and physical systems for a given business related problem including documentation and communication aids. Alternative physical systems are designed and a multidimensional cost/benefit evaluation is performed. *Prerequisites:* Computer Information Systems 222 and 331.

)mputer Information Systems 421. Software Engineering. **(on demand)(3)**
A study of the management and technical tools, procedures, and concepts used in creating software systems for specific application. Students will design and implement a software system. *Prerequisites:* Computer Information Systems 250, 315 and 331.

)mputer Information Systems 425. Applied Software Development Project. **(S)(3)**
A study of application system development and project management. Students will design and implement a comprehensive system to solve a complex case study. *Prerequisites:* Computer Information Systems 332 and 441.

)mputer Information Systems 441. Data Bases. **(F)(3)**
A study of software design in a data base environment, of data base systems, and of data base programming. A variety of hierarchical, network and relational data bases are studied. *Prerequisites:* Computer Information Systems 222 and 331.

ECONOMICS

:onomics 153. Principles of Economics I. **(F)(3)**
The primary objective of this course is to introduce the student to macroeconomic theory including a study of the economizing problem, pure and mixed capitalism, demand and supply, the economic functions of government, national income accounting, the business cycle, employment theory, money and banking, and fiscal policy.

:onomics 154. Principles of Economics II. **(S)(3)**
The primary objective of this course is to introduce the student to microeconomic theory, including demand and supply analysis, elasticity, the production function, price and output determination, costs of production, pricing and employment of resources, and market structures.

:onomics 251. Environmental Economics. **(S)(3)**
Societal choice in the use of scarce resources is related to ecosystem survival, environmental quality, and human welfare.

Economics 363. Money and Banking. **(F)(3**
Objectives of this course include introducing the student to the development of the commercia banking system, the Federal Reserve System, and further exploration of fiscal and monetar policy. *Prerequisite:* Economics 153.

Additional courses listed under: Behavioral Sciences 245, Business Administration 351, Busines Education 353, and History 241.

OFFICE ADMINISTRATION

Office Administration 105. Keyboarding. **(on demand)(1**
Designed to acquaint students with keyboarding skills necessary to operate a computer efficiently

Office Administration 111. Elementary Typewriting. **(F)(3**
A first course in typewriting for the secretarial student. Also for those needing one course i typing for personal use. Keyboard and fundamental processes are presented. Students presentin one or more units of high school typewriting may not take this course.

Office Administration 112. Intermediate Typewriting. **(F,S)(3**
Emphasis is placed upon techniques, speed, and accuracy. Electronic typewriters are introduced *Prerequisite:* Office Administration 111 or one unit of high school typing or the equivalent.

Office Administration 121. Elementary Shorthand. **(F)(3**
Principles of Gregg Shorthand, Series 90. Places emphasis on theory and developing reading an writing skills. Letter transcription introduced. Students presenting one or more units of hig school shorthand may not take this class. Laboratory required.

Office Administration 122. Intermediate Shorthand. **(S)(3**
Greater emphasis placed on writing and transcribing with speed and accuracy. Gregg theory an basic typewriting concepts reviewed. *Prerequisites:* Office Administration 111 and 121 with a grad of at least "C" or the equivalent.

Office Administration 211. Advanced Typewriting. **(S)(3**
This is the final course in typing. Simulations in the sales office, general office, accounting offic executive office, legal office, medical office, technical office, and government office are complete on electronic typewriters. Speed and accuracy are emphasized. *Prerequisite:* Office Administratio 112 with a grade of at least "C" or the equivalent.

Office Administration 221. Dictation and Transcription. **(on demand)(3**
Emphasis placed on speed in taking dictation and in transcription skills. *Prerequisites:* Offic Administration 112 and 122 with a grade of at least "C" or the equivalent.

Office Administration 301. Business English: Theory and Applications. **(F)(3**
Comprehensive review of grammar and usage. Emphasizes and reinforces business application and vocabulary in areas such as business law, word processing, merchandising managemen and computer information systems. *Prerequisite:* English 111 with a grade of at least "C".

Office Administration 302. Business Communications. **(S)(3**
Realistic methods of mastering writing skills needed in business situations. Emphasizes instructio in both the basic and advanced techniques of preparing and organizing business letters, mem oranda, and reports. Also enhances speaking, reading and listening skills. *Prerequisite:* Englis 111 or Office Administration 301.

Office Administration 361. Office Management. **(F)(3**
The principal objective of this course is to introduce the student to the theories and practice required for effective office administration, including communication skills, staffing and supe visory procedures, space management, and word processing.

II. DEPARTMENT OF EDUCATION

Kenneth J. Henry, *Department Head*
Early Elementary Education — Middle Grades Education — Secondary Education

The undergraduate programs in the Department of Education have as their primary objective th preparation of superior teachers for public and private schools.

At Union College the education of prospective teachers is the responsibility of the College as whole, not the Department of Education alone.

The teacher education programs described in the following pages prepare the student to receive a baccalaureate degree and, upon recommendation of the College, a Kentucky teacher's certificate. A student who wishes to teach in a state other than Kentucky should determine certification requirements in that state (usually quite similar to Kentucky's), and plan his program accordingly. Information on certification requirements in other states is available in the Registrar's Office and in the Career Planning and Placement Office.

Students preparing for teacher certification must be admitted to the Teacher Education Program of the College before they will be allowed to register for any of the professional education courses other than Education 241, 242 and 351.

Graduates may continue their professional preparation by entering the Graduate Studies Program. A separate catalog is available from the Dean of Graduate Academic Affairs.

Purposes of the Teacher Education Program

The Teacher Education Program at Union College seeks to aid each student in the realization of the following objectives:

1. A knowledge of the social, physical, and psychological factors which determine behavior and which promote intellectual growth, emotional balance, and wholesome personality.
2. The development of health habits, physical skills, and recreational interests essential to personal well-being and to highest teaching effectiveness.
3. An understanding of the principles and purposes of education in a democratic society.
4. The cultivation of attitudes and abilities essential to successful relationships with youth and professional associates.
5. An understanding of the principles and techniques of effective teaching and the development of appropriate teaching skills.
6. An appreciation of the worth of teaching as a career and as an opportunity for service to youth and to society.

Requirements for Admission to Teacher Education Program

Students who wish to enter teacher education must prepare a folder for presentation to the Teacher Education Committee for approval. The folder must be complete before the student is admitted to the program and must contain the following:

1. Application to the program and an acceptably written essay (2-3 pages) on "Why I want to be a teacher".
2. Documentation to show a minimum composite score on the ACT of 19 and successful completion of essay test. Candidates who do not reach the minimum ACT score may be admitted on the basis of the established 12.5 minimum score on each of the subtests of the CTBS and successful completion of essay test. Students who present evidence of successful completion of CTBS tests taken at other institutions may be accepted.
3. Four unqualified recommendations from instructors submitted prior to Teacher Education Interview.
4. Documentation to show that the student has passed a Teacher Education Interview which evaluates the student's ability to communicate orally.
5. Documentation to show that the student has completed a minimum of thirty hours with a grade point average of 2.5 or better.
6. Documentation to show that the student has completed English 111 and 112 with a grade of "C" or better in both courses.
7. Documentation to show that the student has completed (with a grade of "C" or better) Introduction to Education and Early Involvement at the time of application.

Students who have failed to pass one competency test, or lack one recommendation, or those who are currently enrolled in but have not yet completed Introduction to Education, Early Involvement, and English 112 may be admitted conditionally to the program if all other requirements have been met. Students may retake any CTBS subtest(s) but must complete mandatory tutoring at the Learning Lab before re-taking the subtest(s).

Requirements for Admission to Student Teaching

1. Formal written application by mid-term of the semester preceding the planned student teaching. Application forms may be obtained in the Department of Education office.
2. Senior standing is a prerequisite for admission to student teaching.
3. Completion of at least 90 semester hours of credit with at least a 2.5 grade point average in all courses attempted and a 2.5 GPA in all work attempted in the area, major, or minor fields for which certification is sought.
4. Completion of three-fourths of all required professional education courses with an academic standing of at least 2.5.
5. Completion of three-fourths of all coursework for the teaching major or area of concentration if student teaching is to be done in this specialization; or completion of all the coursework for the teaching minor if student teaching is to be done in the minor area.
6. Approval of the department in which teaching fields are sought.
7. Moral, social, and ethical behavior acceptable in the school community as well as in the community at large.
8. A valid and current medical examination which includes a tuberculosis test filed with the Teacher Education Committee.
9. Maintenance of good standing since admission to the Teacher Education Program.
10. Completion of institutional prerequisites with respect to time in residence and pre-student teaching laboratory experiences.
11. Acceptance by the Teacher Education Committee of the College.
12. No professional education course with a grade below "C" will be accepted.

EARLY ELEMENTARY EDUCATION CURRICULUM

Early Elementary Education (K-4) majors need at least three semester hours each of a Biological and a Physical Science; each must include a lab. Education majors must have a 2.5 overall grade point average for admittance to the program; a 2.5 overall grade point average, and a 2.5 grade point average in the professional education courses for admittance to Student Teaching. Appropriate NTE test(s) must be successfully completed for certification.

I. Preprofessional Courses for Students Preparing to Teach Early Elementary Education (K-4). Preprofessional courses may not be taken by Independent Study.
   - A. Anthropology 221 or Anthropology 251 or Political Science 231 ..... 3 semester hours
   - B. Art 271 — Elementary School Art ..... 3 semester hours
   - C. Computer Information Systems 105 — Introduction to Microcomputer Packages ..... 2 semester hours
   - D. English 355 — Children's and Adolescent Literature ..... 3 semester hours
   - E. Mathematics 203 and 204 — Structure of the Number System ..... 6 semester hours
   - F. Music 373 — Elementary School Music ..... 3 semester hours
   - G. Physical Education 261 — Physical Education in the Elementary School ..... 3 semester hours
   - H. Physical Education Service Course ..... 1 semester hour
   - I. Psychology 111 — Introduction to Psychology ..... 3 semester hours
   - J. Sociology 241 or Geography 241 or History 233 ..... 3 semester hours
   - K. Speech 131 — Fundamentals of Speech ..... 3 semester hours

II. Professional Preparation for Early Elementary Teachers (K-4). These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required and no grade below a "C" is acceptable.
   - A. Education 241 — Introduction to Education ..... 3 semester hours
   - B. Education 242 — Early Involvement Internship ..... 3 semester hours

C. Education 341 — Methods of Teaching Mathematics in the Elementary School ..... 3 semester hours
(Prerequisites: Mathematics 203 and 204)

D. Education 342 — Teaching Science in the Elementary Grades ..... 3 semester hours

E. Education 351 — Human Growth and Development ..... 3 semester hours
(Prerequisite: Psychology 111)

F. Education 361 — Reading in the Primary Grades ..... 3 semester hours

G. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hours
(Prerequisite: Education 361)

H. Education 432 — Methods and Materials in the Elementary School ..... 4 semester hours
(Prerequisites: All 200- and 300-level courses listed under Preprofessional Requirements and Professional Preparation)

I. Education 433 — Supervised Student Teaching in the Elementary School ..... 12 semester hours
(6 hours in one grade level and 6 hours in a non-consecutive grade level)

J. Education 441 — Elementary School Social Studies ..... 3 semester hours

K. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

L. Psychology 361 — Psychology of Learning ..... 3 semester hours
(Prerequisite: Psychology 111)

M. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours
(Prerequisite: Psychology 111)

See Requirements for Admission to Student Teaching

III. Academic Emphasis

The academic emphasis component must include twenty-one semester hours in one of the following six options.

A. ENGLISH/COMMUNICATIONS:

English 111, 112, 212, 221 or 222 or 231 or 232, 355 and 401 or 421; Speech 131

B. FINE ARTS/HUMANITIES:

Art 271, Music 373, Speech 131; two of the following: Art 132, Drama 131 and Music 121; one elective in Religion or Music numbered 300 or above (3 hrs); and Religion 111 or 112 or 231

C. FOREIGN LANGUAGE:

German 111, 112, 211, 212, 331, 495, Independent Study (6 hrs); OR French 111, 112, 211, 212, 331 and 495 Independent Study (6 hrs)

D. MATHEMATICS STUDIES:

Mathematics 111, 203, 204, 211, 301, Computer Information Systems 105 or 231, one elective in Mathematics numbered 300 or above (3 hrs)

E. SCIENCES:
Biology 111, 232 or 233 or 330 or 331, General Science 471, Environmental Studies 350, Physics 105, 111 and 113 or 112 and 114 or Chemistry 111 and 131

F. SOCIAL AND BEHAVIORAL SCIENCES:

Geography 101, Economics 153 or 154, Political Science 101 or 231, History 201 or 202, Anthropology 221 or Sociology 131; and two electives numbered 200 or above in History or Sociology or Psychology (not to include Psychology 361)

MIDDLE GRADES EDUCATION CURRICULUM

Middle Grade Majors (5-8) need at least three hours each of a Biological and a Physical Science; one must include a lab. Education majors must have a 2.5 overall grade point average for admittance to the program; a 2.5 overall grade point average, and a 2.5 grade point average in the major for admittance to Student Teaching. Appropriate NTE test(s) must be successfully completed for certification.

I. Preprofessional Course Requirements for Students Preparing to Teach in the Middle Grades (5-8). No Preprofessional Course may be taken by Independent Study.

A. Health 270 — Personal and Community Health ..... 3 semester hours

B. Physical Education Service Course ..... 1 semester hour

C. Psychology 111 — Introduction to Psychology ..... 3 semester hours

D. Sociology 241 or Geography 241 or History 233 ..... 3 semester hours

E. Speech 131 — Fundamentals of Speech ..... 3 semester hours

II. Professional Preparation for Middle Grades Teachers (5-8)

These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required, and no grade below a "C" is acceptable.

A. Education 241 — Introduction to Education ..... 3 semester hours

B. Education 242 — Early Involvement Internship ..... 3 semester hours

C. Education 361 — Reading in the Primary Grades ..... 3 semester hours

D. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hours

(Prerequisite: Education 361)

E. Education 443 — Supervised Student Teaching in the Middle Grades ..... 12 semester hours

F. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

G. Psychology 361 — Psychology of Learning ..... 3 semester hours

(Prerequisite: Psychology 111)

H. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours

(Prerequisite: Psychology 111)

See Requirements for Admission to Student Teaching

III. Specialization Component

These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required, and no grade below a "C" is acceptable.

A. Education 352 — Human Growth and Development in the Middle Grades ..... 3 semester hours

(Prerequisite: Psychology 111)

B. Education 370 — Curriculum Development for the Middle Grades ..... 3 semester hours

C. Education 436 — Methods and Materials for the Middle Grades ..... 4 semester hours

(Prerequisite: All 200-and 300-level courses listed under Professional Requirements and Professional Preparation)

See Requirements for Admission to Student Teaching

IV. Teaching Fields

(Each student will complete a minimum of 24 semester hours in two fields of study.)

A. ENGLISH AND COMMUNICATION:

English 111, 112, 231 or 232, 355, 401 or 421, 311 or 402, Speech 131, and one English Elective (3 hrs)

B. SCIENCE:

Biology 111, 233 or 321, and 232 or 330; Physics 111 and 113, or 211 and 213; Chemistry 111 and 131; Environmental Studies 110; One of the following sequence of courses: Physics 112, 114 and a Physics Elective (not to include Physics 105); Physics 212 and 214; Chemistry 112, 132, and a Chemistry Elective; and Physics 105 and Environmental Studies 350

C. SOCIAL STUDIES:

History 111, 112, 201, 202, Political Science 101 or 110, Geography 101, Economics 153 or 154, Sociology 131 or Anthropology 221

D. MATH OPTION I:

Mathematics 203, 204, 211, 241, 301, 331, Computer Information Systems 231, and one Mathematics Elective (3 hrs)

E. MATH OPTION II:
Mathematics 203, 204, 241, 242, and twelve hours of Mathematics Electives

SECONDARY EDUCATION CURRICULUM

Union College offers a variety of certification areas for secondary students. Certification for grades 9-12 includes the following:

A. Areas of Concentration:	English, Mathematics-Physical Science, Science, and Social Studies
B. Teaching Majors:	Basic Business, Biology, Chemistry, English, History, Mathematics, Physical Education, Physics, Secretarial Studies, and Sociology
C. Teaching Minors:	Biology, Chemistry, Drama, English, Health, History, Mathematics, Physics, Psychology, and Sociology

In order to be eligible for certification in a Teaching Minor, Secondary Majors must also be eligible for certification in an Area of Concentration or a Teaching Major. See appropriate catalog listings for academic requirements for each of the Areas of Concentration, Teaching Majors and Teaching Minors. Secondary Majors (9-12) need at least three hours each of a Biological and a Physical Science; one must include a lab. Education majors must have a 2.5 overall grade point average for admittance to the program; a 2.5 overall grade point average, and a 2.5 grade point average in the major for admittance to Student Teaching. Appropriate NTE test(s) must be successfully completed for certification.

. Preprofessional Course Requirements for Students Preparing to Teach in the Secondary School (9-12). No Preprofessional Course may be taken by Independent Study.

A. Geography 241 or History 233 or Sociology 241 ..... 3 semester hours
B. Health 270 — Personal and Community Health ..... 3 semester hours
C. Physical Education Service Course ..... 1 semester hour
D. Psychology 111 — Introduction to Psychology ..... 3 semester hours
E. Speech 131 — Fundamentals of Speech ..... 3 semester hours

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I. Professional Preparation for Secondary Teachers (9-12). These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required and no grade below a "C" is acceptable.

A. Education 241 — Introduction to Education ..... 3 semester hours
B. Education 242 — Early Involvement Internship ..... 3 semester hours
C. Education 351 — Human Growth and Development ..... 3 semester hours
D. Education 452 — Methods and Materials in the Secondary School ..... 4 semester hours
E. Education 453 — Supervised Student Teaching in the Secondary School ..... 12 semester hours
F. Education 488 — Professional Interaction in the Schools ..... 3 semester hours
G. Psychology 361 — Psychology of Learning ..... 3 semester hours
(*Prerequisite:* Psychology 111)
H. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours
(*Prerequisites:* Education 241 and 242)

See Requirements for Admission to Student Teaching.

ASSOCIATE OF APPLIED SCIENCE IN VOCATIONAL EDUCATION
(for vocational teachers)

	Credit Hours
English 111 and 112 — Freshman Composition	6
Psychology 111 — Introduction to Psychology	3
Speech 131 — Fundamentals of Speech	3
Natural Science Core Requirement	4
Humanities Core Requirement	3
Social Science Core Requirement	3
Experience Credit for Vocational Certification	6-9
Vocational Education Block (from state approved school) (transfer)	24
Free electives	9-12
	64

ASSOCIATE OF APPLIED SCIENCE IN EDUCATION*

	Credit Hours
English 111 and 112 — Freshman Composition	6
Natural Science (Environmental Studies 101 recommended)	4
Sociology 131 — Introduction to Sociology or Sociology 421 — Rural and Urban Sociology	3
Psychology 111 — Introduction to Psychology	3
Humanities Requirement (speech or theatre recommended)	3
Art 271 — Elementary School Art	3
Music 373 — Elementary School Music	3
Education 241 — Introduction to Education	3
Education 351 — Human Growth and Development	3
Education 440 — Early Childhood Education	3
English 355 — Children's and Adolescent Literature	3
Health 270 — Personal and Community Health	3
Sociology 371 — Social Institutions	3
Health 361 — Principles of Nutrition	3
Special Education 365 — Foundations of Education of the Exceptional Child	3
Supervised Experience in Early Childhood Education	3
Electives — Recommended from Appalachian Semester, Kentucky History, Typing, Recreational Leadership, Arts & Crafts, & Structure of Number Systems	12
	64

ASSOCIATE OF APPLIED SCIENCE FOR GRADUATES OF STATE VOCATIONAL SCHOOLS

UNION COLLEGE OFFERS SPECIAL PROGRAMS AT THE ASSOCIATE DEGREE LEVEL FOR GRADUATES OF STATE APPROVED VOCATIONAL SCHOOLS. THE AMOUNT OF CREDIT HOURS APPLICABLE TOWARD THE ASSOCIATE DEGREE DEPENDS ON THE LEVEL OF WORK COMPLETED IN THE VOCATIONAL SCHOOL (DIPLOMA OR CERTIFICATE).

*Designed for those who work in day care centers and agencies dealing with small children where teacher certification is not required.

EDUCATION

ducation 241. Introduction to Education. **(F,S)(3)**
Explores the purposes, functions, and aims of education. Students are taken on an exploration of various topics including: teaching as a profession, historical and philosophical foundations of education, the theories and influences of great education thinkers, legal aspects of education, and the funding and structure of school programs.

ducation 242. Early Involvement Internship. **(F,S)(3)**
A practical course in which students are assigned to a local school classroom and meet periodically to discuss and generalize their experiences. Acquiring competence in the following: observation, diagnosis, instructional design and planning, use of media and new technology. To be taken concurrently with Education 241. A $15.00 fee is charged. (46 hours of field experience is required.)

ducation 351. Human Growth and Development. **(F,S)(3)**
This course focuses on basic concepts from human development from conception to death. *Prerequisite:* Psychology 111.

dmission to the Teacher Education Program is a prerequisite for the following courses.

ducation 341. Methods of Teaching Mathematics in Elementary School. **(F,S)(3)**
Modern methods and materials for teaching mathematics in the elementary school. *Prerequisite:* Mathematics 203-204.

ducation 342. Teaching Science in the Elementary Grades. **(F)(3)**
The student will examine science curriculum materials and activities in terms of Piaget's developmental stages. Topics will be identified that could be taught using experimental, inquiry, or discovery methods. Lesson plans will be developed using each of the three methods and activities constructed.

ducation 352. Human Growth and Development in the Middle Grades. **(S)(3)**
This course focuses on the physical, intellectual, personal, social and moral development of children in fourth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media will also be included.

ducation 361. Reading in the Primary Grades. **(F,S)(3)**
Basic principles, techniques, and materials for the teaching of reading in the primary grades; emphasis on Methods and Materials which provide for developmental and differentiates instruction. Includes observation, micro-teaching demonstrations, making of lesson plans, and evaluation of a child's readiness. (10 hours of field experience required.)

ducation 362. Teaching Reading in the Content Subjects. **(F,S)(3)**
Comprehension, study, and reference skills as they pertain to reading in the content subjects; emphasis on language arts and the reading-writing relationship. *Prerequisite:* Education 361 (except for English majors).

pecial Education 365. Foundations of Education of the Exceptional Child. **(F,S)(3)**
Etiology and assessment of exceptional learning conditions; characteristics of exceptionalities; special education intervention. *Prerequisite:* Psychology 111. (10 hours field experience).

ducation 370. Curriculum Development for the Middle Grades. **(F)(3)**
This course involves tracing the history of curriculum development in the United States, as well as identifying trends in the curriculum of the middle school. It will include curriculum design, middle school terminology and techniques, social and cultural forces, political forces, programs, organization and evaluation.

ducation 401. Introduction to Counseling and Guidance. **(Sum)(3)**
Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges, and related service-oriented agencies. Essential counseling and guidance services, policies, practices and procedures. *Prerequisite:* Psychology 111.

ducation 432. Methods and Materials in the Elementary School. **(F,S)(4)**
Emphasis on language arts and methods in the early elementary classroom. *Prerequisites:* Education 241, 242, 341, 351, 361, and 362; Psychology 361; ninety semester hours of college credit; quality grade point average of 2.5 in education and at Union College; one semester of residence. No late registration. (15 hours of field experience required.)

ducation 433. Supervised Student Teaching in the Elementary School. **(F,S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and meals paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 436. Methods and Materials for the Middle Grades. **(F)(3)**
This course focuses on instructional strategies and materials needed for releasing the potential for the middle grade student leading from concrete to abstract learning. The course will include curriculum concepts and designs, innovative activities using hands-on-experiences, techniques of writing lesson plans, the development of a unit of work, materials for journal writing, class demonstrations and evaluation. (15 hours of field experience required.)

Education 440. Early Childhood Education. **(Sum)(3)**
Survey of the physical, emotional, mental, and psychological development of the child under six and the role of the kindergarten teachers in working with such a child.

Education 441. Elementary School Social Studies. **(F,S)(3)**
Methods and materials for the teaching of elementary school social studies, including kindergarten through eighth grade curricula. The philosophies, terminology, and evaluation of methods and materials will be included.

Education 443. Supervised Student Teaching in the Middle Grades. **(F,S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and means paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 452. Methods and Materials in the Secondary School. **(F,S)(4)**
Current teaching methods, materials, and innovations in the secondary school with directed observations. *Prerequisites:* All 200- and 300-level courses listed under Pre-professional Course Requirements and Professional Preparation. (25 hours field experience.)

Education 453. Supervised Student Teaching in the Secondary School. **(F,S)(12)**
Under the direction of an experienced teacher, the student directs the usual teaching activities in the classroom for a minimum of 12 weeks. Application should be made one full semester in advance of the time the teaching is to be done. *Prerequisite:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 468. Educational Media. **(Sum)(3)**
Practice in operating educational media and construction of classroom materials. Emphasis on educational television use in the classroom.

Education 488. Professional Interaction in the Schools. **(F,S)(3)**
Discusses the role of the professional teacher including professional values, school community relations, school finance and programs of the school, legal aspects and human interaction in the schools from a variety of perspectives and theories. Addresses the role of classroom management in the learning process.

Education 495. Independent Study. **(F,S)(3)**
Open only to advanced students in the field of Education who wish to do intensive reading in a specific interest area. *Prerequisite:* Twelve semester hours of Education and permission of the Head of the Department.

III. DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Larry Inkster, *Department Head*
Health — Physical Education

HEALTH

Students preparing to teach in an elementary or secondary school in Kentucky are required to omplete the following courses: for an elementary certificate, Physical Education 261; for a secondary ertificate, Health 270.

Requirements for a Minor in Health Education: Twenty-one semester hours which must include Iealth 270, 311, and 340.

Iealth 131. First Aid and Safety Education. **(S)(3)**
Designed to aid the student in developing an understanding of the basic principles of accident prevention as applicable to the home, the highway, and the school. First aid measures for various injuries and illnesses are discussed and practiced.

Iealth 270. Personal and Community Health. **(F)(3)**
The relationship of bodily functions to personal health and grooming and to community and natural health.

Iealth 311. Health Education —K-12. **(S)(3)**
The experiences, activities, and instruction of elementary and secondary students that lead to intelligent self-direction of health behavior.

Iealth 340. Physiology and Anatomy. **(F)(3)**
A study of cellular construction, tissues, organs, and systems of the human body. A study of the functions of these organs and systems as it deals with health and physical education discipline.

Iealth 361. Principles of Nutrition. **(F)(3)**
A study of the composition, nutritive value, and utilization of food.

Iealth 421. Community Health. **(F)(3)**
The social and cultural factors, the physical environment, and the health agencies and services as they relate to the health of the community.

Iealth 451. School and Community Health Workshop. **(Sum)(3)**
Reveals the relationship needed between the school and community to promote the total health of the population. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsored agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio-visual aids.

Iealth 461. Nutrition for Special Needs. **(S)(3)**
A course focusing on the nutrition needs through the life cycle, energy metabolism, and therapeutic applications of nutrition.

Iealth 475. Critical Areas in Health. **(F,Sum)(3)**
Specific health problems confronting society today with particular reference to secondary age students.

Iealth 485. Field Experiences in Health. **(F,Sum)(3-6)**
A directed field experience in some phase of health, with consideration given to both the needs and interests of the student. Opportunities will be available for practical experiences in the school situation, official health agencies, and voluntary agencies.

Iealth 495. Independent Study. **(F,Sum)(1-3)**
Independent study for advanced students only.

PHYSICAL EDUCATION

Requirements for a Major in Physical Education: Students choosing to pursue a Secondary teachin certificate must take thirty semester hours which must include Physical Education 351, 361, 42(421, Health 131 and 340 and four service courses. Physical Education 461 is required but will nc count toward the required 30 hour major. Only two coaching courses may be counted toward th 30 hour major.

A maximum of eight semester hours of service courses may be credited toward graduation. Physic education majors must take four service courses. This is the maximum that can be applied to major, but others may be taken as electives. The following service courses also meet the elementar and secondary requirement for physical education.

Physical Education 111. Beginning Swimming (Non-swimmers only) **(F,S,Sum)(**

Physical Education 112. Intermediate Swimming. **(F)(**

Physical Education 113. Senior Lifesaving. **(F)(**
Prerequisite: Intermediate swimming or permission of the instructor.

Physical Education 121. Team Sports. **(F)(**

Physical Education 122. Volleyball. **(F,S)(**

Physical Education 132. Golf. **(F,S,Sum)(**

Physical Education 133. Tennis and Badminton. **(F,S,Sum)(**

Physical Education 134. Personal Fitness and Aerobic Activities. **(F,S)(**

Physical Education 135. Beginning Tumbling. (Even years only.) **(S)(**

Physical Education 136. Weight Training. **(F)(**

Professional Courses

Physical Education 241. History of Physical Education. **(S)(**
From primitive man through the present, with particular emphasis on Greek physical educatio European systems, and development of physical education in America. Some research into th history of various sports. (Even years only.)

Physical Education 251. Prevention and Care of Athletic Injuries. **(F)(**
Practical study and evaluation of various methods of conditioning. Emphasis on preventive an protective measures, practical study involving basic principles of massage, bandaging, strappin and first aid. Analysis of the instruction and operation of the training room.

Physical Education 261. Physical Education in the Elementary School. **(F)(**
The role of the classroom teacher in physical education. Emphasis is placed on the applicatio of game, movements, exploration, rhythms, and self testing. Included are screening procedure for the assessment of motor development as well as the importance of health and nutrition needs for the elementary school child.

Physical Education 271. Sports Officiating. **(F)(**
Rules and officiating techniques in football, basketball, baseball, and track. (Odd years only.)

Physical Education 301. Theories of Coaching Football. **(F)(**
The practical study of the game of football, as it applies to the coach and player. A study of th fundamental skills, principles, and concepts.

Physical Education 302. Coaching Men's and Women's Basketball. **(F)(**
(Even years only.)

Physical Education 304. Coaching Baseball and Softball. **(F)(**
(Even years only.)

Physical Education 305. Coaching Track and Field for Men and Women. **(S)(**
(Odd years only.)

Physical Education 321. Recreational Leadership. **(S)(**
Leadership techniques in music, social games, arts and crafts, dramatics, camping, nature, an sports. Designed to aid students in enriching their own leisure time and to prepare for leadershi in teaching, full-time Christian service, and social service.

Physical Education 351. Tests and Measurements in Health and Physical Education. **(S)(**
Evaluating health and physical education by the construction and administering of tests. En phasizes reliability, objectivity, validity of tests, and grading system.

Physical Education 361. Organization and Administration of Physical Education and Athletics. **(S)(3)**
Administration of physical education and athletic programs in schools, with special emphasis on philosophy and leadership styles. Includes budget and finance, office management, curriculum development, facilities, legal factors, and public relations.

Physical Education 420. Physical Education for the Exceptional Child. **(F)(3)**
Health conditions which require the physical education program to be adapted to meet the needs of individuals with handicapping conditions will be studied. Additional emphasis on national, state, and local agencies designed to help meet the needs of these individuals. Some work with a local, exceptional population may be required.

Physical Education 421. Kinesiology. **(S)(3)**
An analysis of human motion and its relation to athletic and gymnastic activities; practical application of these principles.

Physical Education 461. Physical Education in the Secondary School. **(F)(3)**
Topical areas such as philosophy, teacher certification, competencies, and professional activities will be covered. Curriculum construction, instructional methods, class management and techniques for teaching specific activities will be considered as they relate to the secondary level.

Physical Education 495. Independent Study. **(F,S,Sum)(3)**
Independent work for advanced students only.

MILITARY SCIENCE PROGRAM (Army ROTC)

ROTC at Union College is affiliated with Eastern Kentucky University's program. Instructors from Cumberland College or EKU serve in an instructional capacity on Union's campus. Army ROTC has a dual mission: (1) the enhancement of citizenship through the development of leadership potential and an appreciation of the roles and missions of our national defense structure; (2) the preparation of students who are qualified by education, experience, attitude, and inherent qualities for service in the U.S. Army Reserves, National Guard, or regular active service.

Completion of the Introduction to Military Science (100-200 level) meets the first of these missions by providing the student a foundation for the development of leadership and management skills through life experience and also by serving as a prerequisite for entry into the advanced military science program. The student incures no military obligation for participation in the Introduction to Military Science. Students whose future employment goals may require leadership or managerial skills, those with an interest in our national defense structure, or those who wish to explore the benefits of a career in the U.S. Army Reserves, National Guard, or regular service are encouraged to take the introductory courses.

For additional information, including questions on ROTC scholarships and other assistance, see military science officers on campus or the division chair of Applied Sciences.

MILITARY SCIENCE

Military Science 101. Group Dynamics of Leadership. **(F)(2)**
Development of leadership and problem solving abilities; examination of leadership style and counseling techniques; comparison of civilian and military leadership; and analysis of the Constitutional historical basis for the U.S. Army.

Military Science 102. Dynamics of Leadership and Operational Teamwork. **(S)(2)**
A study of theories, principles, techniques and fundamentals of map reading and their application. Classes are systematically arranged to promote student participation in group leadership development and problem solving techniques.

Military Science 202. American Military History. **(S)(3)**
Examines U.S. Military history from pre-revolutionary times to post-Vietnam; defines the principles of war; discusses political-military interactions; develops leadership through group contributions; case studies which apply the principles of war to historical periods. This course counts toward the history major.

Military Science 203. Intermediate Leadership and Management. **(F)(2**
Provides students continued development of basic military skills through practical leadershi experiences in performing emergency medical treatment, drill and ceremonies, physical trainin and rifle marksmanship. Principles of leadership and management are presented in classroon discussion.

Military Science 287. Military Science Practicum (Basic). **(on demand)(2,5,6**
Introduces Military Science in a comprehensive summer field course designed to be taken in lie of MLSC 101, 102, 202, or 203. This course emphasizes practical field application and leadershi development.

Military Science 301. Advanced Leadership and Management I. **(F)(3**
Introduction to advanced leadership and management, emphasizing the branches of the Army communication systems, and equipment. Defines principles of leadership and develops leadershi through practical application as a leader in field training and physical conditioning.

Military Science 302. Advanced Leadership and Management II. **(S)(3**
Develops leadership and management ability and military skills in military communications weapons, and tactics. Develops leadership and command presence through student presentation and practical application as a leader in field training and physical conditioning.

Military Science 401. Fundamentals and Dynamics of the Military Team I. **(F)(3**
Develop staff officer skills in leadership and management through decision making and problem solving techniques through military planning, administrative and logistical management and detailed training management.

Military Science 402. Fundamentals and Dynamics of the Military Team II. **(S)(2**
Discusses the impact of world affairs on U.S. Armed Forces; defines overall professional and ethical responsibilities of military officers; development of military officers; development of military management techniques; establishes a basic understanding of military justice and the Geneva convention.

Military Science 487. Military Science Practicum (Advanced). **(on demand)(6**
Develops leadership through intensive six-week field course of rotating leader/command experience in problem analysis, decision making, and troop leading, while providing in-depth coverage of technical and tactical subjects.

DIVISION OF HUMANITIES

Dianne R. Ferris, *Chairperson*
Department of English and Foreign Languages
Department of Music and Fine Arts
Department of Religion and Philosophy

HUMANITIES

Humanities 101, 102, 103, 104. Chapel. **(F,S)(1)**
Participation in chapel programs is designed to aid the student in achieving the breadth and flexibility of mind necessary for full participation in a complex culture. Four major themes are addressed: (a) God and the relations between God, the universe, and man; (b) significant ethical questions and moral issues; (c) the ceremony and liturgy of the Church; (d) significant art and music in the Christian tradition. May be repeated for a maximum of four credits in a four-year course of study.

Humanities 202. Introduction to Film. **(on demand)(3)**
Film is studied as an art form concerned with the human values of mankind. Appreciation of film and its basic elements and techniques is stressed.

Humanities 204. History of the Motion Picture. **(on demand)(3)**
A study of film's development as a distinctive medium of communication and as an art form. The course offers explorations of landmark films from the silent period to contemporary times.

Humanities 320. Medieval Civilization. **(S)(3)**
An introduction to the history and civilization of Western Europe from 800 to 1450. (Odd years only.)

I. DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

Andelys Wood, *Department Head*
English — French — German — Spanish
Journalism (Area of Emphasis)

BACHELOR OF ARTS DEGREE IN ENGLISH

Requirements for a Minor in English

An additional elective English course and Education 362 are required for those seeking teacher certification.

		Semester Hours
ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 231 or 232	Survey of American Literature	3
ENGL 311	Intermediate Composition	3
ENGL 351 or	The Novel: Defoe to Brontes	
ENGL 352 or	The Novel: ca. 1850 to Faulkner	
ENGL 372	Shakespeare	3
ENGL 401 or	Modern Grammar	
ENGL 421	History of the English Language	3
ENGL 451	Modern Poetry	3
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Requirements for a Major in English

I. In addition to all courses required for the minor, students take one of the following courses:

ENGL 320 or	Medieval English Literature
ENGL 321 or	English Renaissance Literature
ENGL 322 or	Restoration and 18th Century Literature
ENGL 331 or	English Romantic Period
ENGL 332	Victorian Period

II. Students must also take the following courses:

ENGL 472	Seminar in Literature	3
and	English Elective	3

Requirements for a Major in English with a Journalism Emphasis

Students take twenty-four hours of English courses (listed below) and twenty-three hours of Journalism courses which must include JOUR 200, 225, 227 and four practicums. Practicums may be fulfilled by working either on the "Union Express" (JOUR 180 to 480) or on the **Stespean** (JOUR 190 to 490) or by choosing a combination of the two practicum sets. Four additional "Union Express" practicums and four additional **Stespean** practicums are available to students during their junior and senior years. Only four hours of practicum may be included in the twenty-three hour Journalism course requirement.

		Semester Hours
ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 231	Survey of American Literature II	3
ENGL 232	Survey of American Literature II	3
ENGL 311	Intermediate Composition	3
ENGL 401 or	Modern Grammar	
ENGL 421 or	History of the English Language	3
ENGL 402	Advanced Composition	
or	300-400 level literature course	3
	Elective 300-400 level literature course	3
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Requirements for an Area in English

Forty-eight semester hours (thirty of which must satisfy the requirements for a English major), including all courses required for the minor, English 402 or 419, Speech 131 and additional courses in drama, journalism, and speech.

Other Requirements

Students preparing to teach high school English are required to take Education 362 and should elect the English major, minor, or area. They should consult the Education Department for full information about course requirements.

All students majoring or minoring in English are advised to take at least six hours of a foreign language.

ENGLISH

English 090-091. English as a Second Language. **(on demand)(0)**
A preliminary, non-credit course for the foreign student seeking to acquire sufficient competence in listening to and speaking the English language to be able to communicate effectively in the classroom and in the college community.

English 110. Developmental English. **(F,S)(3)**
Training in college-level language skills. Designed to prepare students in English 111 and other introductory courses.

English 111. Freshman Composition I. **(F,S)(3)**
Writing papers from a variety of rhetorical approaches and stressing interdisciplinary connections. Reading of short prose pieces as models and for discussion. Must precede English 112.

English 112. Freshman Composition and Literature. **(F,S)(3)**
Literary works and forms from the ancient world to the Middle Ages provide the basis for longer papers emphasizing critical writing and documentation.

A general prerequisite for 200-level courses is the successful completion of English 111 and 112 with a grade of "C" or better.

English 212. Western Literature. **(F,S)(3)**
Survey of Western Literature from early Christian era through 17th Century. *Prerequisite:* English 112.

English 221, 222. Survey of English Literature. **(F,S)(3)**
The first half includes the Middle Ages, the Renaissance, the Restoration and Eighteenth Century, and the second includes the Romantic and Victorian periods, and the Twentieth Century. Either course may be taken separately and not necessarily in sequence.

English 231, 232. Survey of American Literature. **(F,S)(3)**
The first half (1620-1865) begins with the Puritan writers and ends with Walt Whitman, and the second (1865-1950) begins with Emily Dickinson and ends with William Faulkner. Either course may be taken separately and not necessarily in sequence.

English 311. Intermediate Composition. **(S)(3)**
A writing course designed to reinforce and expand expository writing skills with an emphasis on writing as process.

A general prerequisite for literature courses numbered 300 and above is the successful completion of any one of English 212, 221, 222, 231 or 232. Students are urged to consult with members of the department before enrolling for advanced work.

English 320. Medieval English Literature. **(F)(3)**
A study of notable works from selected genres of tenth to fifteenth-century literature with particular attention to Arthurian material, Chaucer, the Lyric, and drama. (Odd years only.)

English 321. English Renaissance Literature. **(S)(3)**
A study of poetry, prose, and non-Shakespearean drama, beginning in the early sixteenth century and ending with Milton. (Odd years only.)

English 322. Restoration and Eighteen Century Literature. **(F)(3)**
Prose and poetry of the neo-classical age, beginning with Dryden and his contemporaries and extending through Samuel Johnson. (Even years only.)

English 331. English Romantic Period. **(F)(3)**
The prose and poetry of the first third of the 19th century, emphasizing the work of Wordsworth, Coleridge, Byron, Shelley, and Keats. (Even years only.)

English 332. Victorian Period. **(S)(3)**
Major poets and prose writers, emphasizing the contributions of such masters as Tennyson, Browning, and Arnold. (Even years only.)

English 351, 352. The Novel. **(F,S)(3)**
Historical study of the growth of the novel as a form. The first course includes novels from Defoe through the Brontes; the second begins ca. 1850 and goes through Faulkner. Either course may be taken separately and not necessarily in sequence. (Even years only.)

English 355. Children's and Adolescent Literature. **(F)(3)**
A course that surveys a wide variety of fiction and poetry enjoyed by children and adolescents and suggests ways of evaluating these works as literature.

English 372. Shakespeare. **(S)(3)**
A critical approach to selected histories, comedies, and tragedies, focusing on their timeless human, literary and dramatic qualities.

A general prerequisite for 400-level courses is junior standing.

English 401. Modern Grammar. **(F)(3)**
An intensive review of traditional grammar in combination with selected material from structuralist views of linguistic analysis and theories of transformational grammar. Attention will be paid to the practical application of each.

English 402. Advanced Composition. **(S)(3)**
For the student who wishes to become a more competent writer. Research papers, factual narratives, argumentation, and "creative" writing are assigned according to the needs and aptitude of the student. (Even years only.)

English 419. Composition for Teachers. **(on demand)(3)**
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself.

English 421. History of the English Language. **(F)(3)**
A study of the origins and development of the English language from Anglo-Saxon times to the present. (Odd years only.)

English 451. Modern Poetry. **(F)(3)**
American and British poetry, with consideration of ways of reading, criticizing, and writing verse in this century. (Odd years only.)

English 472. Seminar in Literature. **(S)(3)**
Intensive study of a major writer, group, or literary topic. May be repeated once for credit.

English 495. Independent Study. **(F,S)(3)**
Intensive individual work under supervision, in some phase of English, American, or world literature linguistics, or composition not otherwise covered in the curriculum. *Prerequisites:* Twenty-four hours of English above English 111, 112, and permission of the head of the department. May be repeated for credit.

JOURNALISM

Journalism 180, 280, 380, 480. Journalism Practicum. **(F,S)(1)**
Actual operation of campus newspaper provides experience in reporting, photojournalism, and use of typesetting equipment. 380 and 480 include management. To be taken in sequence.

Journalism 190, 290, 390, 490. Journalism Practicum. **(F,S)(1)**
Actual operation of campus yearbook provides experience in the basics of photojournalism, design, typesetting, and layout. 390 and 490 include management. To be taken in sequence.

Journalism 200. Introduction to Communication. **(S)(3)**
Open to all students, this course examines communication theory and its applications in newspapers, magazines and television, the history of journalism, career opportunities and needed skills within the news industry. *Prerequisites:* English 111 and typing proficiency of 20 w.p.m.

Journalism 225. Newswriting (Formerly English 225). **(F)(3)**
Basic course in reporting the news. Focus on information gathering, news story content formats, working under deadlines, and use of Associated Press style. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m.

Journalism 226. Feature Writing. **(S)(3)**
A basic course for journalist. Introduces feature story formats, interview techniques, staff and freelance markets in newspapers and magazines. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m. (Odd years only.)

Journalism 227. Editing, Layout (Formerly English 227). **(F)(3)**
Basic instruction in copy editing, page layout and design, headline writing, photo handling, and outline writing.

Journalism 233. Photojournalism. **(F)(3)**
Reporting the news with a camera. Stresses composing and shooting with a 35mm camera and includes darkroom instruction and experience. Lab fee: $25. (Even years only.)

Journalism 331. Media Law and Ethics. **(F)(3)**
Examines the segment of U.S. laws which governs freedom of the press (First amendment, libel, invasion of privacy, pornography/obscenity). Reviews press ethicists and applies their theories to print and broadcast media. (Even years only.)

Journalism 332. Editorial and Public Relations Writing. **(on demand)(3)**
The specialized area of opinion journalism is the focus of this course. Introduces the six categories of editorials, advocacy journalism, editorial cartoons, press released, and writing for organizations. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 333. Sports Writing. **(on demand)(3)**
Focuses on news and feature coverage of sports events, personalities and trends. Examines techniques for interviewing, analyzing statistics, and acquiring sports information. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 340. Advanced Newswriting. **(S)(3)**
Gathering and writing news in depth on current issues and concerns. Stresses awareness of local, state, national, and world events, and techniques of investigative reporting. *Prerequisite:* Journalism 225. (Odd years only.)

Journalism 345. Print Design, Production, Typography I. **(F)(3)**
Creative and practical aspects of designing and preparing materials in print. Experience in use of photographic print shop equipment. Lab fee: $20. *Prerequisite:* typing proficiency of 20 w.p.m. (Even years only.)

Journalism 346. Print Design, Production, Typography II. **(S)(3)**
In-depth continuation of Journalism 345. Lab fee: $20. *Prerequisite:* Journalism 345. (Even years only.)

Journalism 450. Seminar in Journalism. **(S)(3)**
Intensive study of journalism issues, including, but not limited to, press freedom, copyright, libel, slander, fair comment, evolution of print media and its current concerns. *Prerequisites:* twelve hours of journalism, Junior or Senior status and recommendations of course instructor. (Even years only.)

Journalism 485. Internship. **(4)**
Professional experience with an area organization in writing, photography, editing, or design. *Prerequisites:* Fourteen hours of journalism, Junior or Senior status and recommendation of journalism instructor.

Journalism 486, 487, 488, 489. Journalism Practicum. **(F,S)(1)**
Position of high level responsibility on campus newspaper provides continued experience in editing, layout, and newspaper management. *Prerequisite:* Journalism 480.

Journalism 492, 493, 496, 497. Journalism Practicum. **(F,S)(1)**
Position of high level responsibility on campus yearbook provides continued experience in photojournalism, layout, and yearbook management. *Prerequisite:* Journalism 490.

FRENCH

The program offers the opportunity to gain understanding of France and its culture as well as a basic knowledge of the French language. Students offering more than one entrance unit in French and students transferring from other colleges should consult with the instructor before registering for any course in French.

French 111. Elementary French I. **(F)(3)**
Basic French grammar; simple reading, practice in the oral and written language.

French 112. Elementary French II. **(S)(3)**
Continuation of French 111. *Prerequisite:* French 111 or equivalent.

French 211. Intermediate French I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* French 112 or equivalent.

French 212. Intermediate French II. **(S)(3)**
Continuation of French 211. *Prerequisite:* French 211 or equivalent.

French 311. French Civilization. **(S)(3)**
The economic, social, and cultural development of France, French contributions to world civilization. May not count toward fulfillment of the language requirement. **No knowledge of French required.** (Even years only.)

French 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of French literature or civilization. May be repeated for credit.

GERMAN

The program offers the opportunity to gain some understanding of Germany and its culture as well as a basic knowledge of the German language. Students offering more than one entrance unit in German and students transferring from other colleges should consult with the instructor before registering for any course in German.

German 111. Elementary German I. **(F)(3)**
Basic German grammar; simple reading; practice in the oral and written language.

German 112. Elementary German II. **(S)(3)**
Continuation of German 111. *Prerequisite:* German 111 or equivalent.

German 211. Intermediate German I. **(F)(3)**
More detailed study of grammatical structure, reading of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* German 112 or equivalent.

German 212. Intermediate German II. **(S)(3)**
Continuation of German 211. *Prerequisite:* German 211 or equivalent.

German 331. German Civilization. **(S)(3)**
The economic, social, and cultural development of Germany; German contributions to world civilization. May not count as part of the language requirements. **No knowledge of German required.** (Odd years only.)

German 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of German literature or civilization. May be repeated for credit.

SPANISH

The program offers the opportunity to gain some understanding of Spain and its culture as well as a basic knowledge of the Spanish language. Students offering more than one entrance unit in Spanish and students transferring from other colleges should consult with the instructor before registering for any course in Spanish.

Spanish 111. Elementary Spanish I. **(F)(3)**
Basic Spanish grammar; simple reading; practice in the oral and written language; cultural background.

Spanish 112. Elementary Spanish II. **(S)(3)**
Continuation of Spanish 111. *Prerequisite:* Spanish 111 or equivalent.

Spanish 211. Intermediate Spanish I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* Spanish 112 or equivalent. (Even years only.)

Spanish 212. Intermediate Spanish II. **(S)(3)**
Continuation of Spanish 211. *Prerequisite:* Spanish 211 or equivalent. (Even years only.)

II. DEPARTMENT OF MUSIC AND FINE ARTS

Betty S. Stroud, *Department Head*
Art — Drama and Speech — Music

ART

Union College course offerings in the field of art provide service courses for several curricula and opportunities for exploration and growth in artistic self-expression.

Art 132. Introduction to Art. **(S)(3)**
An introduction to Art outlining basic approaches, principles, techniques and media as well as styles of expression, both past and present.

Art 271. Elementary School Art. **(F)(3)**
A studio course involving many kinds of art projects in media suitable to and practicable for elementary grades.

Art 273. Art History. **(on demand)(3)**
The intensive study of major movements, personalities, and styles of architecture, painting and sculpture of world art.

Art 495. Independent Study. **(F,S)(3).**
Independent study or research on approved topics. May be repeated for credit.

DRAMA AND SPEECH

Requirements for a Major: Union College offers a comprehensive major with two options. Students may major in either Drama/Speech or Drama. Other than the Speech courses required for the first option, there is very little difference between the two.

Core courses required for the major include Drama 251, 331, 332, 352, 365, 366, 451 and 461; a total of twenty-four semester hours.

Students electing the Drama/Speech option are also required to take twelve hours in approved courses in Speech, including Speech 131, and three hours of upper division dramatic literature courses.

Students electing the Drama option are also required to take either six hours of upper division dramatic literature courses or a combination of three levels of Theatre Practicum and an upper division dramatic literature course.

Requirements of a Minor in Drama and Speech: Twenty-one semester hours, including Drama 251, 331 or 332, 365, 366 and Speech 131, 231. Cannot be used for a teaching minor certificate.

Requirements for a Minor in Drama: Twenty-one semester hours in Drama, including Drama 251, 331 or 332, 365, 366, and 451. Can be used for teacher certification. An additional six hours may be upper division dramatic literature courses or a combination of upper division dramatic literature courses and three levels of Theatre Practicums.

Drama 131. Introduction to the Theatre. **(F)(3)**
A broad overview of the history of theatre and drama as well as an introductory study of acting, designing, and directing.

Drama 180, 280, 380, 480. Theatre Practicum. **(F,S)(1)**
Actual practical experience in Union College Theatre production in either performance or technical areas.

Drama 251. Fundamentals of Acting. **(S)(3)**
An introduction to the Stanislavsky system of acting involving exercises, analysis, and performance of short scenes.

Drama 321. European Drama Since 1945. **(on demand)(3)**
A study of representative plays in translation by modern writers from Germany, France, Italy, and Poland.

Drama 331. Scene and Light Design. **(F)(3)**
Fundamentals of set and light design for the stage. Practical study of set construction and lighting equipment. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 332. Costume and Make-up Design. **(S)(3)**
Fundamentals of costume design for the stage. Practical study of costume construction and application of stage make-up. *Prerequisite:* Drama 131 or permission of instructor. (Odd years only.)

Drama 352. Advanced Acting. **(on demand)(3)**
Analysis and performance of scenes from contemporary drama and Shakespeare. *Prerequisite:* Drama 251 or permission of instructor.

Drama 365. History of the Theatre to 1642. **(F)(3)**
A study of the theatre, drama, and criticism from the Greeks to 1642. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 366. History of the Theatre from 1642. **(S)(3)**
A study of the theatre, drama, and criticism from 1642 to the present. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 451. Directing. **(on demand)(3)**
Study of directing techniques, and script analysis culminating in the staging of a one-act play. *Prerequisite:* Permission of instructor.

Drama 461. Senior Project in Theatre/Drama. **(on demand)(3)**
A supervised project involving advanced work in some area of Theatre/Drama: criticism, history, directing, designing or performing. Open only to students majoring in Drama.

Drama 495. Independent Study in Drama. **(on demand)(3)**
Independent study or research on approved topics.

Speech 131. Fundamentals of Speech. **(F,S)(3)**
Study and practice of gathering and organizing material for informative and persuasive speeches.

Speech 231. Oral Interpretation of Literature. **(S)(3**
Analysis and performance of narrative prose, poetry, and drama.

Speech 341. Debate. **(on demand)(3**
The study and practice of formal debate. Case preparation and methods of organization usin the national college debate topic for the year. Designed to help students think more clearly organize their ideas more effectively, and present their conclusions more persuasively.

Speech 342. Persuasion. **(on demand)(3**
This course serves to acquaint students with the theory and practice of persuasive techniques Students will develop their own powers of persuasion and learn to recognize the rhetorica techniques employed by others.

MUSIC

Objectives:

1. To provide the required curricula for the Bachelor of Arts and the Bachelor of Science in Music the Bachelor of Music in Church Music, the Bachelor of Music in Music Education.
2. To offer group and private instruction which provides for the development of individual mu sicianship of the music major, music minor, and general college student.
3. To offer opportunities for participation in music ensembles and music theatre for the musi majors, music minors, and general college students.
4. To provide recitals, concerts, and music theatre for the cultural enrichment of the campus and community.

Music Library: The music library, located in the Fine Arts Building, contains records, scores, listening and computer assisted music instruction facilities.

DEGREES

Students majoring in music at Union College may pursue the following degree programs:
Bachelor of Music in Music Education
Bachelor of Music in Church Music
Bachelor of Arts in Music
Bachelor of Science in Music
Bachelor of Science in Music and Business

Bachelor of Music in Music Education (K-12 Certificate)

Candidates for the Bachelor of Music Education will take the following courses (see also Liberal Education and graduation requirements).

(Part of general studies for music majors; prerequisite to admittance to the major in music education.)

Option I, Instrumental Emphasis		*Semester Hours*
MUSC 161-162	Foundations of Music	8
I. Music Core		
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174	Piano Class	2
MUSC 417	Senior Recital	1
		36

II. Professional Courses

MUSC 271	Music in the Public School	2
MUSC 373	Elementary School Music	3
MUSC 375	Instrumental Methods and Materials	2
MUSC 471	Marching Band Techniques	2
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		33

III. Additional Music Requirements

MUSC 171	String Instruments Class	1
MUSC 172	Woodwind Instruments Class	1
MUSC 175	Brass Instruments Class	1
MUSC 176	Percussion Instruments Class	1
MUSC 365	Arranging	2
MUSC 474	Instrumental Conducting	2
		8
	Total	77

Option II, Vocal Emphasis

MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174 or 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
MUSC 475	Pedagogy	2
		38

II. Professional Courses

MUSC 271	Music in the Public School	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		32

III. Additional Music Requirements

MUSC 365	Arranging	2
MUSC 473	Choral Conducting	2
		4
	Total	74
Keyboard majors:	Private Voice	2
	Total	76

Option III, Instrumental Endorsement

Completion of Option II plus an additional twelve hours organized as follows: choice of any three of the four instrumental techniques classes, 3 hours; additional applied music study in one of those areas (3 semesters), 3 hours; Instrumental Conducting, 2 hours; and four additional semesters of participation in an instrumental ensemble (for a total of six semesters), 4 hours.

Option IV, Vocal Endorsement

Completion of Option I plus an additional twelve hours organized as follows: Pedagogy — Vocal, 2 hours; Choral Conducting, 2 hours; Voice Class, 2 hours; additional voice study (2 semesters), 2 hours; and four additional semesters of participation in a vocal ensemble (for a total of six semesters), 1-4 hours.

Bachelor of Music in Church Music

Candidates for the Bachelor of Music in Church Music will take the following courses (see also Liberal Education and graduation requirements).

I. Music Core		*Semester Hours*
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174 or 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
		44

II. Church Music and Professional Courses		
MUSC 231	Handbell Methods	1
MUSC 333	Church Music Administration	2
MUSC 335	Hymnology	2
MUSC 337	Church Organs	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
MUSC 436	History and Philosophy of Church Music	2
MUSC 437	Church Music Practicum	4
		19

III. Additional Music Requirements		
MUSC 171, 172, 175	Instrumental Techniques (choose 2)	2
MUSC 462	Counterpoint	2
MUSC 473	Choral Conducting	2
MUSC 474	Instrumental Conducting	2
	Private Piano or Organ (for voice major) or Private Voice (for instrumental major)	2
		10

IV. Courses in Religion

RLGN 111	Old Testament History, Literature and Interpretation	3
RLGN 112	New Testament History, Literature and Interpretation	3
RLGN 354	Religion in the United States	3
		9
	Total	82

Bachelor of Arts and Bachelor of Science in Music

Candidates for the Bachelor of Arts or Bachelor of Science Degree in Music will take the following music courses (see also Liberal Education and graduation requirements):

I. Academic Emphasis *Semester Hours*

MUSC 111-212	Applied Music*	8
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
MUSC 421-422	Music History Seminar	6
	Music Elective	2
	Ensemble	0
		40

II. Applied Emphasis

MUSC 111-412	Applied Music	16
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
	Ensemble	0
		40

*Eight (8) hours of Applied music credit may include study in a secondary area, but the 212 level must be reached in the student's major applied area.

Bachelor of Science in Music and Business

Candidates for the Degree of Bachelor of Science in Music and Business will take the following courses (see also Liberal Education and graduation requirements):

I. Business Core *Semester Hours*

ACTG 271-272	Principles of Accounting I and II	6
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
BUAD 311 or 312	Business Law	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153-154	Principles of Economics	6
		27

II. Music Requirements

MUSC 111-412	Applied Music	8
MUSC 161-162	Foundations of Music	8
MUSC 171, 172, 173, 175, 176	String, Woodwind, Piano, Brass and Percussion classes (choose any 3)	3
MUSC 261-262	Harmony	6
MUSC 322	Music History	3
		28

III. Additional Business Requirements

BUAD 272	Salesmanship	3
OFAD 302	Business Communications	3
	Upper Division Business Elective	3
	Field Placement	3-10
		12-19

Minor in Music

Twenty-one semester hours, including Music 161-162; three semester hours selected from either Music 321 or 322; two semester hours of music electives; two years of ensemble; and completion of the 202-level of course numbering in one field of applied music, or eight hours of applied music arranged differently with the consent of the department.

DEPARTMENTAL REQUIREMENTS

Specific requirements for music majors and minors are listed in the Music Department Handbook. Students will be held responsible for requirements in the Handbook. More detailed information is given for the following:

1. Entrance Test: All music majors and minors entering the Department for the first time shall take a placement test in theory and functional piano. The test is for placement only, and in no way affects the entrance to music study.
2. Keyboard Proficiency: All candidates for the Bachelor of Music in Music Education and the Bachelor of Music in Church Music must pass the Keyboard Proficiency Test. For details, see the Music Department Student Handbook.
3. Ensemble Requirements: All music majors are required to participate in a minimum of seven semesters of one ensemble within their major performance area and two semesters in another ensemble (8 of the 9 hours must be taken for credit except for those enrolled in the BA or BS curricula). All music minors are required to participate in a minimum of four semesters in an ensemble within their major performance area.
4. Recital and Concert Attendance: Attendance at departmental recitals and concerts is required of all music majors and minors during each semester of applied music study.
5. Recital Requirements: Candidates for the Bachelor of Music degree and candidates for the Bachelor of Arts or Bachelor of Science degree in Music (Applied Emphasis) must present a full recital on their major instrument or in voice. Candidates for the Bachelor of Arts or Bachelor of Science in Music (Academic Emphasis) may be invited to present a recital by the music faculty.

APPLIED MUSIC—SECONDARY LEVEL

These courses are designed for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, a major with an academic emphasis, any music major taking lessons on a secondary instrument, and elective credit.

Music 101-102. Applied Music **(F,S)(1-2)**
Freshman level secondary applied music study.

Music 201-202. Applied Music. **(F,S)(1-2)**
Sophomore level secondary applied music study.

Music 301-302. Applied Music. **(F,S)(1-2)**
Junior level secondary applied music study.

Music 401-402. Applied Music. **(F,S)(1-2)**
Senior level secondary applied music study.

APPLIED MUSIC—MAJOR LEVEL

These courses are designed for students enrolled in Music and Business and for students seeking a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, applied emphasis, and for the Bachelor of Music in Church Music or Music Education.

Music 111-112. Applied Music. **(F,S)(1-2)**
Freshman major or minor level applied music study.

Music 211-212. Applied Music. **(F,S)(1-2)**
Sophomore major or minor level applied music study.

Music 311-312. Applied Music. **(F,S)(1-2)**
Junior major level applied music study.

Music 317. Junior Recital. **(F,S)(0-1)**

Music 411-412. Applied Music. **(F,S)(1-2)**
Senior major level applied music study.

Music 415-416. Applied Field Literature. **(on demand)(2)**
A study of the literature for the student's major instrument, and related instruments where appropriate, with attention to stylistic characteristics and ornamentation.

Music 417. Senior Recital. **(F,S)(0-1)**

Music 418-419. Sight-Reading and Accompanying. **(on demand)(1)**
Proficiency in reading the various clefs, vocal scores; and accompaniments, with emphasis on the techniques of sensitive accompanying. Keyboard majors and selected minors only.

HISTORY AND APPRECIATION

Music 121. Introduction to Music. **(F)(3)**
An historical approach to music appreciation focusing on period and style. Extensive listening to music literature. Not open to music majors or minors.

Music 122. Introduction to the History of American Popular Music. **(S)(3)**
An historical approach involving the study of styles and personalities beginning with the origins of jazz and ending with current trends and concepts. Open to all students.

Music 321, 322. Music History. **(F,S)(3)**
A study of representative music both written and recorded and readings coordinating and integrating music skills. (321) Antiquity through 1600. (322) Baroque period to the present. *Prerequisite:* Music 162.

Music 421-422. Music History Seminar. **(on demand)(3)**
Intensive study of a selected period or genre. Major paper required. *Prerequisites:* Music 321, 322.

CHURCH MUSIC

Music 231. Handbell Methods. **(F)(1)**
A study of the techniques, methods, materials, and repertory of English handbell ringing. *Prerequisite:* Music 162 or permission of instructor.

Music 333. Church Music Administration. **(F)(2)**
The role of the minister of music as related to the graded adult, youth, and children's choir programs, budget and calendar planning, the congregation, the multiple staff church, and the denomination.

Music 335. Hymnology. **(S)(2)**
The study and analysis of the hymns of the church, their sources, development, and usage in contemporary service.

Music 337. Church Organs. **(F)(2)**
The study of the history of the instrument, types of organs, basic upkeep, techniques, and service repertoire.

Music 436. History and Philosophy of Church Music. **(S)(2)**
A detailed, historical study of music within the church relating to its origin and development, with emphasis upon liturgies and historic philosophical positions of the church on music.

Music 437. Church Music Practicum. **(on demand)(4)**
One semester or one summer of supervised field work in an approved church. *Prerequisite:* Consent of the Music faculty.

ENSEMBLES

Music 151. Orchestra. **(F,S)(0-1)**
Open by audition or invitation. Participation in the activities of the Chamber Orchestra of the Cumberlands, a college/community orchestra of modest size. One rehearsal per week. May be repeated for credit.

Music 152. Union College Singers. **(F,S)(0-1)**
Open by audition only; performs in chapel, Christmas concert, Spring concert, graduation, tours, and festivals. Limited to forty-nine students; four rehearsals per week. May be repeated for credit.

Music 153. Stage Band. **(F,S)(0-1)**
Open by audition only. A jazz-oriented ensemble of appropriate instrumentation limited to twenty students. One rehearsal per week. May be repeated for credit.

Music 154. Pep Band. **(F,S)(0-1)**
Open to all interested wind and percussion students. A performance group intended to give support and entertainment at home athletic events. Two rehearsals per week. May be repeated for credit.

Music 155. Brass Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 156. Collegium Musicum. **(on demand)(0-1)**
Open to interested students. A performance group intended to give the student acquaintance with less frequently performed literature. One rehearsal per week. May be repeated for credit.

Music 157. Woodwind Chamber Ensembles. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 158. String Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 159. Union College Chamber Singers. **(F,S)(0-1)**
A select vocal ensemble composed of a small number of singers whose repertory consists of vocal chamber music. Open by audition. May be repeated for credit.

THEORY

Music 161-162. Foundations of Music. **(F,S)(4)**
A combined course in the areas of music theory, history, and literature.

Music 261-262. Harmony. **(F,S)(3)**
Continuation of Music 161-162 in the area of part-writing and analysis. Advanced chromatic harmony of the middle Romantic period. *Prerequisite:* Music 162.

Music 263-264. Ear-Training. **(F,S)(1)**
Sight-singing, ear-training, and dictation to be taken concurrently with Music 261-262. Two periods per week. *Prerequisite:* Music 162.

Music 361-362. Form and Analysis. **(F,S)(2)**
The development of musical forms from small units to large. Study of large scale analytic techniques including those necessary for late 19th and 20th Century music. *Prerequisite:* Music 262.

Music 365. Arranging. **(S)(2)**
Basic techniques of orchestration and arranging. *Prerequisite:* Music 162.

Music 461-462. Counterpoint. **(461 on demand, 462 F, odd years)(2)**
The vocal counterpoint of Palestrina and the instrumental counterpoint of Bach. *Prerequisite:* Music 162.

Music 465. Theory Seminar. **(on demand)(3)**
An advanced course in music theory, including a study of contemporary practices. *Prerequisite:* Music 362 and permission of the instructor.

MUSIC EDUCATION

Music 171. String Instruments Class. **(F)(1)**
Class instruction in strings. (Even years only.)

Music 172. Woodwind Instruments Class. **(S)(1)**
Class instruction in woodwinds. (Odd years only.)

Music 173-174. Piano Class. **(F,S)(1)**
Class instruction in piano.

Music 175. Brass Instruments Class. **(F)(1)**
Class instruction in brass. (Odd years only.)

Music 176. Percussion Instruments Class. **(S)(1)**
Class instruction in percussion. (Even years only.)

Music 177-178. Voice Class. **(F,S)(1)**
Class study for students who are not prepared to study at the level of private applied voice.

Music 271. Music in the Public School. **(F)(2)**
Fundamentals of public school education with special emphasis on the philosophy and foundations of music education and the position of music within the entire curriculum. Includes directed observation of and participation in public school classroom activities.

Music 373. Elementary School Music. **(S)(3)**
Methods and materials in the elementary school. Will include fundamental ability at the keyboard, the fundamentals of music, and library research. Includes die observation of and participation in public school classroom activities for music majors.

Music 374. Vocal Methods for the Secondary School. **(F)(3)**
Materials, rehearsal techniques, and vocal health for the secondary school student. Includes directed observation of and participation in public school classroom activities. *Prerequisites:* Music 271 and Junior standing.

Music 375. Instrumental Methods & Materials. **(S)(2)**
Teaching Instrumental Music in the Public Schools: Procedures, techniques, curriculum, scheduling, administration, evaluation, materials, equipment, and community relations. Includes directed observation of and participation in public school classroom activities. *Prerequisites:* Music 171, 172, 175, 176, 271, and Junior standing.

Music 471. Marching Band Techniques. **(F)(2)**
Functions, organization, and direction of a school marching band program. *Prerequisites:* Music 271 and Junior standing.

Music 473. Choral Conducting. **(F)(2)**
Techniques and literature. (Odd years only.)

Music 474. Instrumental Conducting. **(F)(2)**
Techniques and literature. (Even years only.)

Music 475. Pedagogy. **(on demand)(2)**
Techniques and principles of private and class instruction, emphasis on recommended materials.

INDEPENDENT STUDY

Music 495. Independent Study. **(F,S)(2-3)**
Independent study and/or research on approved topics. *Prerequisite:* Permission of the student's major professor. May be repeated for credit.

III. DEPARTMENT OF RELIGION AND PHILOSOPHY

Michael McCoy, *Department Head*
Christian Education — Religion — Philosophy — Philosophy/Religion

Courses in this Department are designed to acquaint students with the Judaeo-Christian tradition and the other great religious traditions and with the great traditions and disciplines of human thought; to deepen their awareness of themselves and of the human community; to cultivate their powers of critical examination of and the meaning and direction of human existence.

Studies in religion are especially recommended for students of art, history, and literature, and for students preparing for Christian vocations.

Studies in philosophy are especially recommended for pre-professional education for such vocations as the Christian ministry, college teaching, law, journalism, creative writing, and art, as well as for students of history, literature, and the sciences.

CHRISTIAN EDUCATION

In recognition of increasing demand for trained men and women as full-time Christian workers in the ministry of the local church, to serve in the capacities of pastor's assistant, director of youth work, or Director of Christian Education, a specific four-year course of study has been arranged, using the facilities of various departments. It is designed to meet the basic needs of students who wish to go directly into church positions without graduate work.

A 24-hour major is recommended in Religion, including Religion 222, plus courses in music, drama, and Appalachian studies. A second major or minor in drama or music is often helpful. The following three courses should supplement this major:

Speech 131. Fundamentals of Speech
Physical Education 321. Recreational Leadership
Psychology 402. Counseling Theories and Techniques

RELIGION

Requirements for a Major: The twenty-four semester hours major, recommended for Christian Education and pre-ministerial students, must include Religion 111, 112, 311, plus Philosophy 261. The thirty-hour major may include Philosophy 371.

Requirements for a Minor: Twenty-one semester hours, at least nine of which must be in courses numbered above 300.

Religion 111. Old Testament History, Literature, and Interpretation. **(F)(3)**
The history of Israel from the earliest times to the Maccabean Age. Historical and literary criticism and religious significance of the emergence of Judaism.

Religion 112. New Testament History, Literature, and Interpretation. **(S)(3)**
Attention to author, date, origin, historical and religious significance. *Prerequisite:* Religion 111 recommended.

Religion 131. World Religions. **(S)(3)**
A descriptive account of the faith and practices of present-day world religions, with emphasis on Hinduism, Buddhism, Confucianism, and Islam.

Religion 201-202. Elementary New Testament Greek. **(F,S)(3)**
A semi-inductive approach to koine Greek recommended for persons interested in religion as well as for religion majors.

Religion 212. Old Testament Prophets. **(F)(3)**
The nature of prophecy and the prophetic movement in Israel from its beginning with Moses to its close with the book of Jonah. (Even years only.)

Religion 222. Administration and Education in the Local Church. **(S)(3)**
Administrative responsibilities of the Director of Christian Education as related to the pastor, local church governing body, and the congregation. Theory and practice of Christian Education with special attention to planning a year's program in the local church.

Religion 231. The Life and Teachings of Jesus. **(S)(3)**
The world into which Jesus was born and an interpretation of his messianic consciousness, personality, activities, and teachings. *Prerequisite:* Religion 112 recommended. (Even years only.)

Religion 241. The Life and Teachings of Paul. **(F)(3)**
The world of Paul, his life, teachings, and significance, using his letters as the primary source. *Prerequisite:* Religion 112 recommended. (Even years only.)

Religion 301-302. Elementary Old Testament Hebrew. **(F,S)(3)**
A study of sufficient grammar to read simple Old Testament passages, recommended for persons interested in religion as well as for religion majors.

Religion 311. Introduction to Christian Thought. **(S)(3)**
Examination of tradition and comtemporary understanding of the Christian faith, with emphasis on the nature of God and of man; the significance of Christ and the Church; the relation of religion to morality; the meaning of Creation and Redemption; and the interpretation of Human Destiny. *Prerequisite:* Religion 112. (Even years only.)

Religion 327. Archaeology and the Bible. **(S)(3)**
Archaeological discoveries related to the Old and New Testament eras, supplemented by wide reading in books, magazines and newspapers, and class reports, color slides and movies.

Religion 353. Church History. **(on demand)(3)**
The origin and development of the Christian Church from its beginning through the Reformation.

Religion 354. Religion in the United States. **(F)(3)**
This course provides students with a phenomenological and historical description of the varieties of religious practice in the United States. No prerequisites. (Odd years only.)

Religion 479. Seminar in Religion. **(on demand)(3)**
Intensive study of a special subject with oral and written reports. Possible topics include The Fourth Gospel, Apocalyptic Literature, Pauline Theology, Wisdom Literature, The Apostolic Period. *Prerequisites:* Advanced standing and permission of the instructor.

Religion 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY

Requirements for a Minor. Twenty-one semester hours.

Philosophy 151. Introduction to Philosophy. **(F,S)(3)**
Both a study of the nature of philosophy, its aims, problems, and methods, and an exercise in philosophizing in which the student clarifies constructively and evaluates critically his own and other understandings of life.

Philosophy 202. Logic. **(S)(3)**
Cultivation of rational acuity through an examination of the procedures and limits of rational discourse. (Odd years only.)

Philosophy 261. Philosophy of Religion. **(F)(3)**
An introduction to basic modern concepts, issues, and methods in the philosophical examination of religion. (Odd years only.)

Philosophy 371. Ethics. **(F)(3)**
Cultivation of reasoning in moral decision-making through an examination of traditional ethical theories, contemporary moral issues and the structure of moral decision.

Philosophy 376. History of Western Philosophy I: Ancient and Medieval. **(on demand)(3)**
Philosophical thinking in its cultural context, from its birth through the classical and medieval eras.

Philosophy 377. History of Western Philosophy II: Modern. **(on demand)(3)**
The rise and development of modern thought-forms through the nineteenth century.

Philosophy 378. History of Western Philosophy III: Contemporary. **(on demand)(3)**
Twentieth century western thinking and its nineteenth century backgrounds, with particular reference to modern idealism, phenomenology, existentialism, pragmatism and the analytical movement. *Prerequisite:* any philosophy course.

Philosophy 479. Seminar in Philosophy. **(on demand)(3)**
Intensive study of a special topic such as Epistemology, Metaphysics, Plato, Kant. *Prerequisite:* Permission of instructor.

Philosophy 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY/RELIGION

The Philosophy/Religion major is recommended for students interested in pursuing studies in the traditions of Western Thought and Values. It is a useful course for pre-professional training in such areas as law, teaching, and Christian vocations. It is also an appropriate major for students seeking broad liberal arts backgrounds or preparation for graduate study in philosophy or religion.

The major consists of thirty hours including the following courses:

Religion 111. Old Testament History, Literature and Interpretation
Religion 112. New Testament History, Literature and Interpretation
Religion 311. Introduction to Christian Thought
Philosophy 151. Introduction to Philosophy
Philosophy 202. Logic
Philosophy 376. History of Western Philosophy I: Ancient and Medieval
Philosophy 377. History of Western Philosophy II: Modern

The remaining three courses may be elected from courses in Religion or Philosophy at the 300 level or above. It is strongly recommended that at least one of these courses be either Religion 479 or Philosophy 479.

DIVISION OF NATURAL SCIENCES

Robert W. Swanson, *Chairperson*
Biology — Chemistry — Computer Science — Environmental Studies
General Science — Mathematics — Physics — Science Education

BIOLOGY

Requirements for a Major: A major in Biology consists of the courses listed below plus an additional 8 hours in Biology.

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232	General Zoology	4
BIOL 233	General Botany	4
BIOL 361	Genetics	4
BIOL 431	Cell Biology	
OR		
CHEM 421	Biochemistry	3
BIOL 441	Ecology	4
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
GNSC 471	Science Seminar	1
MATH 111	College Algebra and Trigonometry	4
MATH 211	Basic Statistics	
OR		
BHSC 245	Basic Statistics: Theory and Application	3
One of the following groups of Physics courses		7-9
PHYS 111-112	Elements of General Physics	
PHYS 113	Elements of General Physics Laboratory	
OR		
PHYS 211-212	General Physics	
PHYS 213	General Physics Laboratory	

Biology 234 and 331 are highly recommended as electives for students seeking secondary certification. Recommended additional cognates consist of Mathematics 241 and Chemistry 212, 311-312.

Requirements for a Minor: Twenty-four semester hours in Biology are required. Biology 111, 232 and 233 must be included. Students seeking secondary certification must complete either the area of concentration in science or major in mathematics, chemistry or physics.

Biology 109. Elements of Biology. **(F,S,Sum)(3)**
A course designed as an introduction to the principles of biology for non-science majors through a survey of the major animal and plant groups. Those groups characteristic of southeastern Kentucky will be emphasized with attention to their adaptations to natural habitats.

Biology 110. Elements of Biology Laboratory. **(F,S)(1)**
Optional laboratory course to accompany Biology 109. No credit will be given for Biology 110 without simultaneous or prior successful completion of Biology 109.

Biology 111. Introduction to Biology. **(F)(4)**
A course emphasizing general concepts of modern biology for majors and non-majors. Topics surveyed include cell biology, bioenergetics, molecular and Medelian genetics, reproduction, development, evolution and ecology. Human relevance is stressed. Laboratory work is included. This course is a prerequisite to all other courses in biology. *Prerequisites:* High school biology and chemistry strongly recommended; ACT Natural Science score of 25 or higher recommended for freshmen.

Biology 151. Medical Terminology. **(F)(2)**
The study of the specialized terminology of medical science. Recommended for pre-professional students, biology majors, allied health students, and students in other health-related fields. Those seeking secondary certification cannot count this course toward certification requirements. This course does not meet the biological science requirement for teacher education. (Odd years only.)

iology 232. General Zoology. **(F)(4)**
A survey of the animal kingdom with emphasis on diversity, evolution, and environmental relationships. Additional topics include energy metabolism, taxonomy, reproduction, population phenomena, behavior and sociology.

iology 233. General Botany. **(S)(4)**
A survey of the plant kingdom from the blue-green algae through the flowering plants. Emphasis is given to morphology and to evolutionary relationships. Appropriate discussions of plant physiology, plant taxonomy, and human economic importance are included.

iology 234. Microbiology. **(S)(4)**
An introduction to the classification, morphology, physiology, and genetics of the bacteria, fungi, viruses, and micrometazoans, as well as their roles in nature, health, and industry. Laboratory work stresses techniques for the culture and identification of microorganisms. A portion of the course is devoted to immunology. *Prerequisites:* Biology 111 and Chemistry 111. (Even years only.)

iology 315. Vertebrate Biology. **(on demand)(4)**
The anatomy, physiology, taxonomy, ecology, behavior, and evolution of the vertebrate phyla with emphasis on the species endemic to southeastern Kentucky.

iology 321. Field Biology. **(S)(3)**
Field investigations including observation, collection, and identification of local fauna and flora are offered under discrete course headings including: Limnology, Ornithology, Entomology, Local Flora, Dendrology, and Mycology. Pertinent field data are collected and analyzed appropriately. Two one-hour lectures and one three-hour laboratory session per week. (Even years only.)

iology 330. Anatomy and Histology. **(F)(4)**
A study of the tissues, organs, and organ systems of vertebrates with emphasis on the human body in health-related sciences. (Odd years only.)

iology 331. Human Physiology. **(S)(4)**
A study of the functioning of the human organ systems with normal and clinical considerations. *Prerequisites:* Chemistry 112 and 132. (Odd years only.)

iology 350. Parasitology. **(F)(4)**
An intense study of protozoan and metazoan parasites with an emphasis on morphology, life cycles, pathology and control. The laboratory component emphasizes methods used to 1) necropsy host animals, 2) prepare parasites for identification, and 3) analyze host pathology by employing histological techniques. A slide collection of various parasites is required. *Prerequisites:* Biology 111 and 232. (Even years only.)

iology 361. Genetics. **(F)(4)**
A study of the principles of inheritance including Mendelian, population, and cytogenetics. *Prerequisites:* Math 111 and 211 (or Behavioral Science 245).

iology 431. Cell Biology. **(F)(3)**
An indepth survey of the structure and function of a wide range of living cells with consideration of biochemical and biophysical bases of this structure and function. Certain characteristics of viruses are also considered. *Prerequisites:* Chemistry 112, 132; Biology 111, 232 and 233. Prior completion of Chemistry 311 and Biology 234 is desirable. (Even years only.)

iology 441. Ecology. **(S)(4)**
A study of the relationships between organisms and their abiotic and biotic environment including biogeochemical cycles, population dynamics, diversity, and pollution of terrestrial and aquatic ecosystems. *Prerequisites:* Biology 232 and 233. Completion of Biology 361 is recommended.

iology 495. Independent Study and Research. **(F,S)(1-3)**
An introduction to the methods of science through original research. For advanced students who have demonstrated potential for performing an independent investigation of a substantive problem. The problem is chosen and carried out in collaboration with the instructor. A typewritten report in publication style is required.

CHEMISTRY

Requirements for a Major: Thirty semester hours of Chemistry including Chemistry 111, 112, 31, 132, 212, 311, 312, and 342. Science cognates consist of Physics 211, 212, 213, 214, 311; Mathmatics 241, 242; and General Science 471.

Requirements for a Minor: Twenty-one semester hours including Chemistry 111, 112, 131, 132, 11 and either 212 or 411.

Chemistry 111-112. General Chemistry. **(F,S)(**
A systematic study of the fundamentals and applications of the experimental and theoretical la of chemistry. Major topics include nomenclature, stoichiometry, chemical thermodynamics, eq librium, acid-base reactions, atomic and molecular theory and structure, chemical kinetics a nuclear chemistry. Examples and problems are drawn from all areas of chemistry. Concurre registration in General Chemistry Laboratory, Chemistry 131-132, is highly recommended for students. *Prerequisite:* Mathematics 111 which may be taken concurrently.

Chemistry 131-132. General Chemistry Laboratory. **(F,S)(**
Laboratory experiments in general chemistry that illustrate basic principles and develop laborato skills. Experiments are coordinated with the General Chemistry topics. Inorganic qualitative an ysis is included in Chemistry 132. Three hours of laboratory per week. Concurrent registrati or previous completion of Chemistry 111-112 is required. No credit may be received for Chemist Laboratory 131-132 without the simultaneous or prior completion of the corresponding lectu courses Chemistry 111-112.

Chemistry 212. Quantitative Analysis. **(F)(**
A study of important volumetric and gravimetric analyses presented from a modern theoretic standpoint. Also an introduction to the study of advanced methods of analysis including son newer instrumentation techniques. *Prerequisites:* Chemistry 112 and 132.

Chemistry 311-312. Organic Chemistry **(F,S)(**
A course in the chemistry of organic compounds. Unitized laboratory work is designed to illustra the basic principles of organic chemistry. *Prerequisites:* Chemistry 112 and 132.

Chemistry 342. Physical Chemistry. **(S)(**
A study of atomic structures and chemical bonding in terms of modern quantum theory. Topi include molecular spectra, physical methods of investigation and chemical kinetics. *Prerequisit* Mathematics 242 and Physics 212. (Even years only.)

Chemistry 411. Inorganic Chemistry. **(S)(**
A systematic study of the structure, properties and reactions of non-carbon elements, with er phasis on the non-metals and the transition metals. Topics include atomic-molecular structu and bonding, physical methods of investigation, organometallic chemistry and bioinorganic cher istry. *Prerequisite:* Chemistry 312. (Odd years only.)

Chemistry 421. Biochemistry. **(on demand)(**
Study of chemistry, energetics and metabolism of biomolecules, such as, carbohydrates, protein lipids, nucleic acids, enzymes and vitamins with reference to living systems. *Prerequisite:* Cher istry 312.

Chemistry 495. Special Problems. **(F,S)(**
This is an introduction to the methods of scientific research. The course is designed for th advanced student who has demonstrated ability to do independent work in Chemistry. It w consist of a particular problem decided upon after consultation with the instructor. Upon co clusion of the work a typewritten and bound report-thesis may be required. An examination ma or may not be given, depending on the nature of the problem.

COMPUTER SCIENCE

Requirements for a Minor: Twenty-one semester hours consisting of Mathematics 241, Comput Information Systems 221, 231, 250, 310, 315 and an additional Computer Information Systems cours numbered 200 or above. Course descriptions are listed under Computer Information Systems.

ENVIRONMENTAL STUDIES

Requirements for a Minor: Twenty-four hours, to be chosen by the student, the student's maj advisor, and an advisor from Environmental Studies. Courses are also listed under the variou departments to which they relate. The required core: Environmental Studies 101 and 313, Biolog 109 or 111, and Economics 251. The remainder of the courses are to be chosen from other Enviro mental Studies courses or the following recommended electives: Biology 315, 321, 441; Geograph 241; Mathematics 125; Philosophy 371; Sociology 311, 371, 421 and certain experimental courses.

Environmental Studies 101. Man and the Environment. **(F)(**
A multi-disciplinary course in which basic ecological principles are developed and used to sho human impact on natural eco-systems. Topics include endangered species, impact of populatio growth, land use and the management problems, food production and demands.

nvironmental Studies 110. Physical Systems of the Environment. **(S)(4)**
A study of the physical environment as the home of man. Emphasis on distribution and interaction of environmental variables (weather, landforms, vegetation, soils, and climate). This course may be used to fulfill the physical science requirement for students seeking teacher certification. Laboratory activities included.

nvironmental Studies 313. Environmental Policy. **(F)(3)**
A study of the decision-making processes and the consequences of alternative courses of action on environmental quality. Analyzes the impact of public opinion, the various branches of government and pressure groups on environmental/energy policies at the federal and state levels. *Prerequisites:* Environmental Studies 101 and an introduction political science course, or permission of instructor. (Odd years only.)

nvironmental Studies 350. Man's Geologic Environment. **(S)(4)**
Significance of regional and local geological features and processes in land use planning. Use of geological information to reduce conflicts in utilization of mineral and water resources and damage due to natural hazards. *Prerequisites:* Environmental Studies 110 or 113. (Odd years only.)

nvironmental Studies 469. The Appalachian Environment. **(Sum)(3)**
Conservation of natural resources including soil, water, wildlife and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. *Prerequisites:* Two courses in environmental studies or biology and an introductory economics course.

nvironmental Studies 487. Field Practicum in Environmental Studies.

GENERAL SCIENCE

Neither a major nor a minor is offered.

General Science 124. Introduction to Physical Therapy. **(S)(2)**
A general orientation to the historical background, philosophy and professional ethics of physical therapy, interprofessional relationships between members of the health care team; concepts of health and disease; overview of the total medical spectrum, medical technology, modalities used in physical therapy, and orientation to clinical service departments and their administration.

General Science 401. Science: Concepts, Processes and Inquiry. **(S)(3)**
The student will examine the processes in science such as collecting data, measuring, predicting, formulating hypotheses, experimenting, etc. As materials from such programs as ESS, SCIS IME, IIS, ISCS, PSSC, etc., are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching science will be stressed along with individualized instruction, learning theory, laboratory equipment use (commercial and home-made) and multimedia instruction. *Prerequisite:* Admission to Teacher Education Program.

General Science 471. Science Seminar. **(S)(1)**
A lecture/discussion of selected topics of interest, lead by faculty members of the Division of Natural Sciences, invited speakers, and student participants. May be repeated once; a student can earn a maximum of two credit hours through this course. All natural science majors must take this course at least once. *Prerequisite:* Natural science major with Junior or Senior standing, or permission of the instructor.

MATHEMATICS

Requirements for a Major: Thirty semester hours numbered 241 and above including Mathematics 241, 242, Physics 211, 212, 213, 214, and two of the following courses: Mathematics 333, 402, 403.

Requirements for a Minor: Twenty-one semester hours numbered 241 and above to include Mathematics 241 and 242.

Mathematics 100. Elements of Mathematics. **(F,S)(3)**
This course is intended for students who need to improve their arithmetic and elementary algebra skills to take other mathematics courses or courses requiring quantitative reasoning. The course includes a brief review of whole number arithmetic (particularly prime factorization, exponents, and perfect squares), an extensive review of fractions, decimals, ration and proportion, percent, and an introduction to algebra (including arithmetic integers, algebraic expression, and linear equations).

Mathematics 108. Intermediate Algebra. **(F)**
This course is intended for students with a weak background in high school algebra who wa to know more about the subject and/or plan to take Mathematics 111, College Algebra a Trigonometry. The course includes a review of the real number system (particularly integers a irrational numbers), operations with polynomials, operations with algebraic fractions, simpl cation of radical expressions, solutions of equations and inequalities (linear quadratic, higl order, and simultaneous), and an introduction to graphs and functions. *Prerequisite:* Success performance on entrance exam covering arithmetic and elementary algebra (given on first day class).

Mathematics 111. College Algebra and Trigonometry. **(F,S)**
Brief review of intermediate algebra including expressions, equations, and inequalities; grap of relations; functions as a specific type of relation; graphs of functions; systematic graphir combining functions and finding inverses; exponential and logarithmic functions; solving sim taneous equations using matrix methods; right triangle trigonometry; general trigonometry; gonometric functions, their graphs and inverses; trigonometric identities and equations.

Mathematics 125. Graphic Analysis. **(F)**
Basic map reading for geologic and topographic maps, scaled drawings, use of planimeter, cavation sections, coal tonnage estimation, methods and procedures of three-dimensional mc eling from topographic maps as a basis of engineering calculations.

Mathematics 203-204. Structure of the Number System. **(F,S)**
Historical development of the numeration system from an intuitive to a logical approach bas upon set theory, definitions of the basic operations on whole numbers and their propert extended to integers, rationals, and irrationals; study of why and how of algorithms for operations; topics in informal geometry.

Mathematics 211. Basic Statistics. **(S)**
Basic concepts of descriptive and inferential statistics. Illustrations of applications in the fields education, business, sociology, psychology, and natural science. *Prerequisite:* High-school algel or permission of the instructor.

Mathematics 232. Surveying. **(S)**
Principles, calculations, and field practice in surveying, measuring distances and elevations, sta method, map reading, land areas, care and use of instruments. *Prerequisite:* Mathematics 108 equivalent, or permission of the instructor.

Mathematics 241. Introduction to Calculus and Analytic Geometry. **(S)**
Inequalities, the straight line, conic sections, limits, the derivative, differentiation of algebr functions, applications of the derivative, extrema, and the antiderivative. *Prerequisite:* Mathemat 111 or permission of instructor.

Mathematics 242. Intermediate Calculus and Analytic Geometry. **(F)**
The integral, applications of the integral, logarithmic and exponential functions, trigonomet functions, hyperbolic functions, techniques of integration, L'Hospital's Rule and indetermin forms, and improper integrals. *Prerequisite:* Mathematics 241.

Mathematics 243. Advanced Calculus and Analytic Geometry. **(S)**
Topics selected from polar coordinates, vectors, solid analytic geometry, partial differentiatic multiple integration, infinite series, and differential equations. *Prerequisite:* Mathematics 242.

Mathematics 301. Plane and Analytic Geometry. **(S)**
This course will be divided into three sections. Mathematical Proof: connectives, implicatio truth tables, principles of proof, hypothesis, theorems. Plane Geometry: the application of techniques of a proof to plane geometry topics non-euclidean geometry. Analytic Geometry: cantesian plane, development of equations of a locus, equations for conic sections. *Prerequis* Mathematics 111 or 204. (Even years only.)

Mathematics 331. Introduction to Linear Algebra. **(F)**
Vector algebra in Euclidean spaces, lines and planes in space, matrices and linear equatio groups, and rings. *Prerequisites:* Math 111 and permission of the instructor. (Odd years only.)

Mathematics 332. Linear Algebra. **(S)**
Vector spaces, subspaces, linear independence, linear transformations, determinants, inner pr uct spaces, orthogonality, and unitary transformations. *Prerequisite:* Mathematics 331. (Odd ye only.)

Mathematics 333. Modern Algebra. **(on demand)**
An introduction to abstract algebra including groups, subgroups, quotient groups, isomorphi theorems, rings, and ideals. *Prerequisite:* Mathematics 241 or permission of the instructor.

Mathematics 372. Probability and Mathematics Statistics. **(F)(3)**
Theoretical probability using point set approach, probability as a frequency ratio; probability for finite sample spaces; conditional probability; joint and continuous distributions, binomial distribution; Baye's theorem; statistical applications of probability; theory of sampling and variance. *Prerequisites:* Mathematics 242, which may be taken concurrently, and permission of the instructor. (Even years only.)

Mathematics 402. Functions of a Complex Variable. **(on demand)(3)**
Complex numbers, analytic functions, elementary functions of a complex variable. Cauchy's formula, Liouville's theorem, Laurent's series, residues, contour integration, conformal mapping, physical applications. (Even years only.)

Mathematics 403. Introduction to Analysis. **(on demand)(3)**
Sets and functions, topological ideas, LUB property, real sequences, continuity, mean value theorems, integration, definite integrals, Taylor's theorems, improper integrals, convergence of infinite series, power series, improper integrals with parameter. (Even years only.)

Mathematics 471. Differential Equations. **(S)(3)**
Differential equations of first order and first degree, differential equations of first order and higher degree, differential operators and linear differential equations, reduction of order. *Prerequisite:* Mathematics 242. (Even years only.)

Mathematics 495. Independent Study. **(F,S)(3)**
Independent work on topics selected to meet the student's needs. For Mathematics majors only.

PHYSICS

Requirements for a Major: Physics 211, 212, 213, 214, 311, 312, 401, and 411 plus an additional six hours of upper level physics courses. Chemistry 342 may be included. Required science cognates include Chemistry 111, 112, 131, and 132; Mathematics 241, 242, and 243; and General Science 471.

Requirements for a Minor: A minimum of twenty-one semester hours of Physics numbered 211 and above, including Physics 211, 212, 213, 214, 401, and either 311 or 312.

Requirements for Secondary Certification: A teacher education student who selects a major in physics is required to complete Biology 111 or 109 and 110 as well as Physics 105 or Environmental Studies 110. Those who select a minor in physics are required to complete one of the following: the area of concentration in science; the area of concentration in mathematics-physical science; or a teaching major in either mathematics, biology, or chemistry.

Physics 105. Astronomy. **(S)(4)**
An introduction to the elements of astronomy. Constellation identification, telescope operation, solar features, life and death of stars, galaxies and cosmology. Experiments and activities will illustrate telescope use, star and constellation identification, analysis of data from photographs and spectrum charts, etc.

Physics 111-112. Elements of General Physics. **(F,S)(3)**
These courses are intended for life science and non-science students. They may be taken separately and in any order. Physics 111 topics include mechanics of motion; the properties of solids, liquids, and gases; and thermal phenomena. Physics 112 topics include wave motion and vibrations; electricity and magnetism; optics; and selected topics in modern physics. Does not count toward a minor. *Prerequisite:* High school algebra or permission of the instructor.

Physics 113-114. Elements of General Physics Laboratory. **(F,S)(1)**
Laboratory experiments accompanying Physics 111 and 112 respectively to illustrate basic principles and develop laboratory skills. No credit may be received for these laboratory courses without concurrent or prior completion of the corresponding lecture course.

Physics 211-212. General Physics. **(F,S)(4)**
Mechanics of solids, liquids and gases; laws of thermodynamics; kinetic-molecular theory, vibrating bodies; wave physics; laws of Coulomb, Faraday, Ampere, Ohm, Joule, and Lenz; electromagnetism; optics. *Pre- or Corequisite:* Mathematics 242.

Physics 213-214. General Physics Laboratory. **(F,S)(1)**
A general physics laboratory course involving experiments in mechanics, heat, sound, electricity, magnetism, and optics. Experiments are coordinated with Physics 211-212.

Physics 232. Basic Electronics Laboratory. **(S)(3)**
Theory and applications of solid state devices, power supplies, motors, transformers, A.C. and D.C. circuits and diagrams, circuit protections, control circuits. *Pre- or Corequisite:* Physics 112.

Physics 310. Statics. **(S)(**
Study of force systems on bodies at rest. Applications of conditions of equilibrium to coplana and space systems. Virtual work, centroids, moments of inertia, and products of inertia. *Prere uisite:* Physics 211. (Odd years only.)

Physics 311. Heat and Thermodynamics. **(F)(**
Thermodynamic systems and processes, equations of state, PVT surfaces and real substance laws of thermodynamics, energy equations, enthalpy, entropy, thermodynamic potentials, ap plication of thermodynamics to simple systems. *Prerequisites:* Physics 212 and Mathematics 24 (Even years only.)

Physics 312. Electricity and Magnetism. **(F)(**
Electric charges, forces, field and potential with associated magnetic forces and fields; dielectri theory; capacitance, inductance, resonance, and oscillations; series and parallel DC and AC ci cuits; measuring instruments; Maxwell's equations and electromagnetic waves. Four lecture hou per week. Strongly recommend prior enrollment in Physics 232. *Prerequisites:* Physics 212 an Mathematics 243 and 471. (Odd years only.)

Physics 401. Principles of Modern Physics. **(F)(**
Elementary concepts of quantum mechanics, selected topics in atomic and nuclear physics. *Pre requisite:* Physics 212 and Mathematics 242. (Even years only.)

Physics 411. Classical Mechanics. **(S)(**
Motion of a particle, systems of particles, rigid bodies; moving coordinate systems; Lagrange' equations; small oscillations. *Prerequisite:* Mathematics 243. (Even years only.)

Physics 412. Physical Optics. **(on demand)(**
Wave propagation and superposition; interference, diffraction, absorption, dispersion, polariza tion, double refraction, interaction of radiation with matter, laser theory; theory of selected optica instruments. *Prerequisite:* Physics 212.

SCIENCE EDUCATION MAJORS (SPECIALIZATION COMPONENT FOR CERTIFICATION)

Students who wish to teach secondary science may choose one of the following three programs (A) A Major (30 hours) in one of the sciences plus a certifiable minor in one of the other science or mathematics; (B) A mathematics-physical science area of certification; (C) A science area o concentration. Those seeking certification in the middle grades also have available an area of spe cialization in science.

All students seeking secondary certification in biology, chemistry or physics must take at leas sixteen semester hours in biology, chemistry, physics or environmental studies outside the majo requirements.

1. AREA OF CONCENTRATION IN MATHEMATICS-PHYSICAL SCIENCE

A total of 48 semester hours are required including:

		Semester Hours
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
CHEM 212	Quantitative Analysis	
OR		
CHEM 411	Inorganic Chemistry	4
CHEM 311	Organic Chemistry	4
MATH 241-242	Calculus and Analytic Geometry	8
MATH 331	Introduction to Linear Algebra	3
	Mathematics elective	4
PHYS 211-212	General Physics	8
PHYS 213-214	General Physics Laboratory	2
	Physics electives	7
		48

At least 18 semester hours must be in courses numbered 300 or above. General Science 471 is highly recommended and may be counted in this 18 hour requirement. Students who choose this area are urged to exceed the minimum semester hour requirement and complete 21 semester hours in each of two of the three fields (chemistry, mathematics, and physics).

A major or additional minors may be taken in the area. A teacher with such preparation would be certified only to teach in the major or minor disciplines and all general interdisciplinary science courses at the secondary level.

. **AREA OF CONCENTRATION IN SCIENCE**

A total of 48 semester hours are required including:

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232	General Zoology	
OR		
BIOL 330	Anatomy and Histology	4
BIOL 233	General Botany	
OR		
BIOL 321	Field Biology	3-4
CHEM 111-112	General Chemistry	6
CHEM 131	General Chemistry Laboratory	1
ENVS 110	Physical Systems of the Environment	4
ENVS 350	Man's Geologic Environment	4
GNSC 471	Science Seminar	1
PHYS 211-212	General Physics	8
PHYS 213	General Physics Laboratory	1
		36-37

Also included must be a minor in either biology, chemistry or physics. At least 18 semester hours must be in courses numbered 300 or above.

. **TEACHING MINORS**

A teacher education student who selects a minor in biology, chemistry or physics is required to complete one of the following: the area of concentration in science; the area of concentration in mathematics-physical science; or a teaching major in either mathematics, biology, chemistry, or physics.

PRE-PROFESSIONAL PROGRAMS

Students who have career interests in medicine, dentistry, veterinary medicine, optometry, or ıedical technology may fulfill the admissions requirements of respective professional schools by ursuing a Bachelor's degree in biology or chemistry. Students may also arrange for transfer to a rofessional school after three years (ninety-six semester hours) at Union College. Upon completion f one year of study at the professional school, students will be awarded their Bachelor's degree rom Union College. (See section on Combined Degrees.)

Since admission requirements of professional schools vary considerably, all students having an ıterest in these fields are advised to select the professional school they wish to attend and choose re-professional courses accordingly. An academic advisor will be assigned who, working closely vith the student, will plan a program of study and assist with the admissions process into the rofessional school of their choice. For details of specific programs, the following faculty members hould be consulted:

Dentistry — Staff
Engineering — Carter, Pfeiffer
Medical Technology— Chandler
Medicine — Chandler
Optometry — Covington, Swanson
Pharmacy — Staff
Physical Therapy — Chandler
Veterinary Medicine — Covington

PHYSICAL THERAPY

Union College provides a two year curriculum which allows students to complete courses requir for entrance into the Physical Therapists Assistant (PTA) program at Jefferson Community Colle in Louisville or the Physical Therapy Program at the University of Kentucky in Lexington.

Union College and Jefferson Community College have entered into an agreement whereby st dents from southeastern Kentucky may work toward an Associate of Applied Science degree ar qualify to be a PTA. The student will take courses at Union College during the first two years ar complete the program at Jefferson Community College during the third year. Jefferson Communi College reserves two positions annually for qualified Union College students. To qualify for gra uation from this program, a student must also present a Red Cross First Aid Certificate earn within the last four years. Students who enter this program will be asked to state in writing th intent to return to southeastern Kentucky to work as PTA's.

The Department of Physical Therapy at the University of Kentucky has approved Union's cours work for the two year Pre-Professional Phase of their program. Admission to the Professional Pha at the University of Kentucky is based on completion and is not guaranteed.

DEGREE IN MEDICAL TECHNOLOGY

Union College has cooperative agreements with University of Louisville and The Methodist Ho pital of Kentucky, Pikeville, in which the student attends Union College for three years and, upo acceptance, enters the cooperating institution and receives clinical training in medical technolo for twelve months. On satisfactory completion of the program the student is awarded a bachelor degree in medical technology and should be qualified for a national certifying examination.

COMBINED DEGREE IN ENGINEERING

A Cooperative "Three-Two Plan" has been worked out with the University of Kentucky ar Auburn University in which the student attends Union College for three years pursuing certain pr engineering courses in addition to a solid program in liberal arts. At the end of the three year upon the recommendation of Union College, the student enters the cooperating university or ar accredited engineering school as a junior and in two additional years completes all the requiremen for the B.S. degree in Engineering. Both the B.A. or B.S. from Union College and a B.S. in Engineerir from the cooperating university are awarded at the end of the fifth year.

DIVISION OF SOCIAL SCIENCES

James C. Raymondo, *Chairperson*
Appalachian Studies and Appalachian Semester
Anthropology — Behavioral Sciences — Geography
History — Political Science — Pre-Law — Psychology
Sociology — Area in Social Studies Education

ANTHROPOLOGY

Anthropology 221. Introduction to Cultural Anthropology. **(S)(3)**
A survey of the archaeological and biological history of mankind as it relates to the development of man and his culture, with comparisons drawn between the cultures of primitive people and Western Civilizations.

Anthropology 251. North American Indian Cultures. **(F)(3)**
The historical development of North American Indian technology, and the cross-cultural study of four diverse Indian cultures at the time of White contact, will be the main focus of this course. Economics, ecology, technology, role relations, medicine, politics and conflict will be the focus of study in each culture. (Even years only.)

BEHAVIORAL SCIENCES

The two departmental courses listed below are "core" courses in the Behavioral Sciences curriculum. Both courses are required as a part of the Psychology and Sociology majors or minors.

Behavioral Science 245. Basic Statistics: Theory and Application. **(F,S)(3)**
Basic concepts of descriptive and inferential statistics, illustrations of applications in the fields of sociology, psychology, business, education, and natural science. Should demonstrate a proficiency in basic mathematics and algebra as determined by grades in Mathematics 100 or on a placement test.

Behavioral Science 341. Methods of Behavioral Science Research. **(S)(3)**
Techniques and philosophies of behavioral science research including experimental, quasiexperimental, survey, evaluation, field, and unobtrusive designs for the collection and interpretation of information.

GEOGRAPHY

Geography 101. Introduction to Geography. **(S)(3)**
Emphasis on the concepts of place, region, spatial interaction, landscape interpretation and landscape evolution. Deals with the graphic media of geography — maps, graphs, scale models. Case studies illustrate geographic principles to familiarize students with various parts of the world. For future teachers as well as students of the natural and social sciences.

Geography 241. Geography of Appalachia. **(F)(3)**
A systematic analysis of the physical, demographic, economic and cultural characteristics of the Appalachian landscape, with comparative significance for other regions. Includes field study.

HISTORY

Requirements for a Major: Thirty semester hours of history including History 111, 112 and 300. At least 12 hours must be U. S. History and 12 hours must be non-U.S. History. Military Science 202 may be counted toward the U.S. history requirement.

Requirements for a Minor: Twenty-one semester hours in history; including History 111 and 112. At least 9 hours must be in U.S. History and 9 in non-U.S. History. Military Science 202 may be counted toward the U.S. history requirement.

History 111. World History to 1500. **(F,S)(3)**
Survey of the institutions, culture, and thought of major world civilizations to 1500. The course will focus primarily on Western civilization, with some attention given to the development of China, India, the Americas, and Africa.

History 112. World History since 1500. **(S)(3)**
Survey of world history during the period of European expansion and colonial domination.

History 201. United States History to 1865. **(F)(3)**
A survey of American history through the Civil War, tracing the development of the American nation. Stress is placed on the nature of colonial society; the American Revolution; the creation of a national government; the influence of Jackson, and the Civil War.

History 202. United States History since 1865. **(S)(3)**
A survey of American history to present times tracing the rise of America as a world power. Emphasis is on the changes of industrialization; the loss of civil rights; protest and reform; the Depression; and American influence in the world.

History 233. History of Appalachia. **(Sum,F)(3)**
A survey of the region from settlement to the present time. The course focuses especially on the impact of the frontier experience, the Civil War and industrialization. "How is Appalachia both similar to and different from the rest of America?" is a major question addressed by the course.

History 241. American Economic History. **(S)(3)**
Examination of the economic forces shaping the development of the American nation. Topical consideration of mercantilism; the rise of capitalism; slavery; the shocks of industrialization; the New Deal; and criticism of American economic power and capitalism. (Even years only.)

History 300. Historical Research and Methods. **(F)(3)**
Gathering and criticism of data; bibliographies and aids; problems in historiography, composition, analysis, and the final monograph.

History 311. United States Colonial and Revolutionary Eras (1600-1815). **(F)(3)**
An examination of the conflicting historical interpretations of these eras. Topics emphasized will be Puritanism; Colonial society; reasons for the Revolution; the meaning of the constitution; and the nation's early problems. (Odd years only.)

History 312. Jacksonian Era & the Civil War (1815-1865). **(S)(3)**
Emphasis on the conflicting historical interpretations of Jacksonian American and the Civil War. Topics include the Second Political Party System; slavery; expansion; and the causes of the Civil War. (Odd years only.)

History 313. Industrial America (1865-1919). **(F)(3)**
A consideration of the conflicting historical interpretations of the period. Topics emphasized include the loss of Civil Rights; the nature of the Gilded Age; Populist and Progressive Reforms; and World War I. (Even years only.)

History 323. Latin America. **(S)(3)**
Survey of Latin American history from the discoveries by Columbus to the present. (Odd years only.)

History 342. History of Britain. **(F)(3)**
British history from the end of the War of the Roses until 1918. Emphasis on the religious, political, and economic development of Britain, the rise and decline of the British Empire, and British intellectual trends. (Odd years only.)

History 345. American Constitutional History: Civil and Political Rights. **(F)(3)**
An examination of the influence of the Supreme Court with primary stress given to political and civil rights. Major consideration is the modern and Warren Supreme Court. (Even years only.)

History 351. Europe to 1713. **(F)(3)**
History of Europe from 1350 to 1713. Course will cover the Renaissance, the Reformation, the counter-Reformation, the decline of feudalism, the rise of secularism, and the origin and development of the national state. Focus will be on changes in thought and belief. (Even years only.)

History 352. Europe since 1713. **(S)(3)**
History of Europe from 1713 to the present. Course will cover the enlightenment, mercantilism, economic and imperial colonialism, domestic revolutions, the Napoleonic era, the industrial revolution, the Concert of Europe, major intellectual trends, and the world wars. Focus will be on political change. (Even years only.)

History 421. The Middle Period (1821-1850). **(F)(3)**
A detailed examination of Jackson, politics, and the culture of the period. Stress is placed on reform and the predominance of change in American life, and conflicting interpretations of the period. (Even years only.)

History 446. History of Russia. **(F)(3)**
Russian history since 1689. Survey of the political and social changes in Russia from the time of Peter the Great to the present, including an extensive review of the origins and development of the modern Soviet state. (Even years only.)

History 470. Twentieth Century America. (S)(3)
Selected topics on the nation's history since 1900, including the New Deal, Viet Nam, and Watergate. (Odd years only.)

History 495. Independent Study. (F,S,Sum.)(3)

HISTORY AND POLITICAL SCIENCE

Requirements for a Major: Thirty semester hours divided as follows: eighteen semester hours of history, including History 201, 202, and twelve additional hours of history at the 200 level or above; and twelve semester hours of political science, including Political Science 101. Majors must take either History 300 (which counts toward the history requirement) or Behavioral Science 341 (which counts toward the political science requirement). Military Science 202 may be counted toward the history requirement. Environmental Studies 313 may be counted toward the political science requirement.

POLITICAL SCIENCE

Requirements for a Minor: Twenty-one semester hours, including Behavioral Science 341 and Political Science 101. Environmental Studies 313 may count toward the minor.

Political Science 101. American National Government. (F)(3)
A survey of the principal characteristics of the American National Government; examination of constitutional principles, federalism, political participation, institutions of government, and the politics of public policy.

Political Science 231. International Politics. (F)(3)
Basic historical, economic, and cultural factors in the international political system. The rise and development of Western nation-state systems; the foundations of national power; sovereignty, nationalism and imperialism; the development of international organizations and cooperation.

Political Science 305. American Political Parties and Politics. (S)(3)
The organization, functions, and practices of political parties in the United States, their methods of influencing public opinion, their role in nominations and elections, and their impact on popular government. (Even years only.)

Political Science 308. The American Presidency. (S)(3)
Analysis of the institution of the presidency, its functions, formal and informal relationships, and its limitations within the American political system. (Odd years only.)

Political Science 461. Administrative Management. (on demand)(3)
Methods of applying administrative principles to the operation of government agencies. Relevance of administrative theory to management procedures in government; the relation of policy formation and implementation to the administrative policy system environment.

PSYCHOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Psychology 111, 210, 352, 361 and 460.

Requirements for a Minor: Twenty-one semester hours including Behavioral Sciences 245, 341, Psychology 111, 210, and 361.

Psychology 111. Introduction to Psychology. (F,S)(3)
Emphasis on the study of human behavior and the ability of the individual to make adjustments to his environment.

Psychology 201. Psychology of Personal Adjustment. (S)(3)
Factors determining the development of personality, principles of mental health, and problems involved in the dynamics of human adjustment.

Psychology 210. Child Development. (S)(3)
Emphasis on recent child development theories with laboratory experiences with children on a one-to-one basis.

Psychology 330. Social Psychology. (F)(3)
Major emphasis is on problems involved in human relations. Designed to help the individual to understand and adjust to group thought and action. Attention is given to recent psychological and sociological research in human relations.

Psychology 352. Abnormal Psychology. **(S)(3**
Mental disorder, changing conceptions of normality, the more common forms of mental disorders their psychological interpretation, principles of effective mental hygiene, and contemporary ap proaches to psychotherapy.

Psychology 361. Psychology of Learning. **(F)(3**
Basic concepts and principles of learning with emphasis upon human and animal laboratory studies.

Psychology 402. Counseling Theories and Techniques. **(F)(3**
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing. Permission of the instructor required.

Psychology 460. Theories of Personality. **(F)(3**
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological and stimulus-response theories included.

Psychology 461. History and Systems of Psychology. **(on demand)(3**
Origins of psychological thought within science and philosophy, tracing the development o systems and theories within German, British, and American psychology.

Psychology 470. Theories of Learning. **(S)(3**
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories.

Psychology 495. Independent Study. **(F,S,Sum)(1-3**

SOCIOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Sociology 131, 460. Psychology 330 is strongly recommended and will be credited toward the thirty semester hour requirement.

Requirements for a Minor: Twenty-one semester hours, including Behavioral Sciences 245, 341, Sociology 131. Psychology 330 is strongly recommended and will be credited toward the twenty-one semester hour requirement.

Appalachian Semester courses, Sociology 349 and 422, may count toward both the major and minor.

Sociology 131. Introduction to Sociology. **(F,S)(3)**
The social interaction of persons and groups; man's cultural heritage and social nature; analysis and principles of group life; forms of collective behavior; the process of socialization; social structure, interaction and reorganization, including race relations and social class; a variety of social institutions; the family, education, religion; the economy and politics; social change.

Sociology 241. Sociology of Appalachia. **(S)(3)**
Uses the basic principles and concepts of sociology to study life in the Appalachian region. The areas of study include socio-economic class, culture, folklore, social institutions, the family, religion, schooling, poverty, and development.

Sociology 251. Current Socio-Economic Problems. **(F)(3)**
Scientific understanding of social problems; problem areas in contemporary American society; types of personal disorders and role impairment; the influences of social change on the structure of society. Attention is also given to the question of why certain forms of deviance become defined as social problems.

Sociology 255. Selected Topics in Political Sociology. **(on demand)(3)**
A series of seminars and small group discussions organized around a set of case readings in the area.

Sociology 271. Marriage and the Family. **(S)(3)**
Background experiences in the lives of young people leading up to courtship and marriage; the establishment and functioning of the home, with related biological and social factors. Emphasis upon changing attitudes toward family relationships, some of the problems involved and suggested solutions.

Sociology 311. Human Ecology. **(S)(3)**
Population distribution, growth, composition, and its relevance to current economic, social, and political problems. (Even years only.)

Sociology 353. Minority Groups. **(F)(3)**
A social scientific study of the origin and organization of minorities and their effect on society, with particular emphasis on minorities in the United States.

Sociology 371. Social Institutions. **(F)(3)**
An examination of the structure and function of social institutions, with primary orientation within the American milieu. Particular emphasis on socialization, stratification, social change, and relations among institutions. (Odd years only.)

Sociology 387. Field Practicum in Sociology. **(S)(3)**
The field practicum in sociology is designed to give social science majors practical experience in a professional field related to sociology. Field placements will include such diverse experiences as working in the county clerk's office, pre-trial services, social services and other programs. *Prerequisites:* Behavioral Science 245, and either Anthropology 221, Psychology 111 or Sociology 131, and permission of the instructor.

Sociology 421. Rural and Urban Sociology. **(F)(3)**
Comparative and interrelated study of urban and rural life considering physical, institutional, social and economic factors of modern life in cities and in the countryside. (Even years only.)

Sociology 433. Social Change. **(F)(3)**
This course introduces students to the problems of development and change. Examples will be drawn from Third World models of development, nationalism, imperialism, environmentalism, and human rights. The course is interdisciplinary, with emphasis on historical, economic, environmental and sociological aspects. (Odd years only.)

Sociology 460. Sociological Theory. **(F)(3)**
The major theories which have proved useful in investigating the nature of society are examined as cultural products, ideologies, and scientific models. Special attention is given to major figures such as Comte, Durkheim, Weber, Merton, C. Wright Mills, White and Sorokin in the emergence and convergence of their theoretical development. Lecture and discussion in a seminar setting.

Sociology 464. Sociology of Deviance and Criminology. **(S)(3)**
This course will develop an understanding of the social definitions and implications of deviance. Various types of deviant behavior and relevant theories of society will be addressed. (Even years only.)

Sociology 495. Independent Study. **(on demand)(1-3)**

APPALACHIAN STUDIES

An interdisciplinary minor in Appalachian Studies is available to interested students. Courses involving the study of Appalachia may be found throughout this catalog.

Requirements for a Minor. Twenty-one semester hours chosen from the following: Behavioral Sciences 341 or History 300; Environmental Studies 313 and 469; Geography 241; History 233; and Sociology 241. Participation in the Appalachian Semester may also be counted toward a minor in Appalachian Studies.

APPALACHIAN SEMESTER

Tracy A. Campbell, *Coordinator*

The Appalachian Semester offers mature students a unique educational opportunity to devote their full time to studying the Appalachian region — its strengths, its problems and its challenges. The program's objectives are to promote in-depth awareness and understanding of life in Appalachia from an interdisciplinary area. This comprehensive academic program, which includes both classroom and field experience, provides 15 semester hours of credit in a variety of disciplines and offers the student the opportunity to become actively involved in a unique part of American society.

The following courses comprise the Appalachian Semester. Students must complete an application with the Coordinator prior to enrollment in this program.

Sociology 287. Appalachian Field Practicum/Research. **(F)(6)**
Each Appalachian Semester student, in consultation with the program coordinator, will develop a specialized field experience. This course may be either experiential learning in a service or institutional setting, or directed study on a regional topic. Academic credit is available in English, history, sociology, anthropology, psychology, or social work, and in other disciplines on a negotiated basis as necessary and feasible.

Sociology 345. Appalachian Semester Orientation Seminar. (F)(3
A multidisciplinary introduction, within the context of regional unity and diversity, to mountain society, folk culture, literature, music, religion, ethnic groups, geography and history.

Sociology 349. Political Economy of Appalachia. (F)(3
An analysis of the political economy of the Appalachian Region, e.g., settlement patterns; subsistence and commercial agriculture; timber, coal, textiles, and tourism; land ownership and land use; the corporate sector; taxation; government programs and planning; and issues of external and internal power relationships.

Sociology 422. Social Institutions in Appalachia. (F)(3
A theoretical and observational analysis of the cultural and social characteristics of the Appalachian Region. Special emphasis will be given to the contemporary Appalachian culture and to the interaction of mountain people with the broader forces of social change at work in modern America.

Sociology 487. Appalachian Field Practicum/Research. (F)(6
Each Appalachian Semester student, in consultation with the program coordinator, will develop a specialized field experience. This course may be either experiential learning in a service or institutional setting, or directed study on a regional topic. Academic credit is available in English, history, sociology, anthropology, psychology, or social work, and in other disciplines on a negotiated basis as necessary and feasible.

AREA IN SOCIAL STUDIES

An area of concentration in social studies consists of a minimum of forty-eight semester hours to include: a minimum of seven courses in history for a total of at least twenty-one semester hours with at least three courses in United States history, three courses in non-U.S. Western history, and one course in non-Western history. History courses numbered 381 and 481 are special topics courses that may count toward either the U.S. history or the non-U.S. Western history requirement depending on course content.

The remaining twenty-seven semester hours credit may be selected from certain courses in the areas of anthropology, economics, geography, political science, psychology, and sociology. Social studies subjects in which a student has completed nine or more semester hours shall be designated as concentration areas on the certificate.

Area concentrations are available in the fields of: economics, political science, psychology, and sociology. Students should consult with an advisor for all details and program requirements, and are responsible for meeting all social studies curriculum plan requirements.

Area Concentrations

History
18 semester hours including History 111, 112, 201, 202, 3 semester hours upper division American history and 3 semester hours upper division non-American history

Sociology
18 semester hours including Behavioral Science 245, Sociology 131 and 12 semester hours in Sociology

Twelve Hour Block

History 111 World History to 1500
History 112 World History since 1500
History 201 United States History to 1865
History 202 United States History since 1865
Behavioral Science 245 Basic Statistics: Theory and Application
Sociology 131 Introduction to Sociology
Additional 6 semester hours in Sociology

PRE-LAW

Most law school admissions committees require a student to have a four-year college program leading to the Bachelor of Arts or Bachelor of Science degree plus an acceptable score on the Law School Admissions Test. Regardless of the major, elective hours in accounting, business, history, political science, philosophy, and English prove helpful. Students should consult with a pre-law advisor no later than the junior year.

CAMPUS INFORMATION

Location, Campus and Buildings

Union College is located in Barbourville, a residential town of 3,500, on U.S. highway 25E midway between Lexington, Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. Cumberland Gap National Historical Park is thirty miles away. The Doctor Thomas Walker State Shrine is four miles from the campus and in adjoining counties are Cumberland Falls State Park, Levi Jackson State Park, and Pine Mountain State Park.

On one of the most picturesque campuses of the South, Union College is proud of its Georgian buildings. Shaded by overhanging elms, the red brick buildings give the campus a majestic charm of dignity and beauty.

Speed Hall, (Administration Building), 1897-1905. A gift from the estate of Mrs. Fanny Speed of Louisville, KY. Her bequest also partially financed Centennial Hall and Stevenson Hall.

Centennial Hall, (formerly the Classroom Building), 1907.

Stevenson Hall, Men's Dormitory, 1907; wings added 1957.

Dramatic Arts Center, (formerly Soldiers' and Sailors' Memorial Gymnasium), 1919, remodeled 1965.

Baldwin Place, the home of the President, 1925. The gift of Mr. and Mrs. F.E. Baldwin, Elmira, New York.

Maintenance Building, 1938, originally equipped by a gift from the estate of Robert Norton, New Albany, Indiana.

Abigail E. Weeks Memorial Library, 1941, originally furnished by a gift from Mrs. Abbie E. Stewart. Expanded, 1987.

Pfeiffer Hall, Women's Dormitory, 1942; wing added 1960. The original wing was a gift from the estate of Mr. and Mrs. Henry Pfeiffer, of New York City.

Conway Boatman Chapel and Fine Arts Building, 1949.

College Courts, residences for married students, 1954; expanded in 1964.

College Park Drive, 1960, faculty residential area.

Langford Apartments, 1962. Gifts from the estates of Miss Mary Kyle Dugan and Mrs. Mary Gilbert Langford in memory of Mr. and Mrs. George Langford. Housing for faculty and staff.

Physical Education Building, 1964, including the Swimming Pool, 1957.

Student Center, 1964.

Mahlon Miller Science Center, 1973.

Religious Life Center, 1975.

Publications

Union College Bulletin — An official quarterly bulletin, one issue of which is the catalog number. The bulletin is sent free on request.

Parent's Bulletin — A publication to inform parents of activities on campus.

Union Express — A newspaper published by the journalism program.

Union College Alumnus — A bulletin published by the Alumni office.

Stespean — The yearbook, published annually by a college student staff.

Union and You — A publication that combines the official calendar and institutional policies. This is the student handbook.

Pfeiffer Perspective — A handbook for residents of Pfeiffer Hall.

Stevenson Scenario — A handbook for residents of Stevenson Hall.

Student Organizations

Students have the opportunity of participating in and developing leadership through a number of campus organizations. Some of these are departmental, some are limited to honor students in their fields, many are open to all interested students. Each has a faculty sponsor and some include faculty in their membership. The following are official clubs and organizations as approved by the faculty of Union College. Campus organizations must file each year for sanction to operate and new organizations must apply to be recognized and sanctioned. The Dean of Students is the administrative contact for organizations and for their requests for funds from student activities monies.

Academic Team — An opportunity to participate in a multi-campus quick-recall league.

Alpha Psi Omega — A national honorary theatre fraternity. Union's Zeta Chi chapter serves to encourage participation in the college's theatrical activities and to develop larger and better informed theatre audiences.

Appalachian Wilderness Club — A group to explore the outdoors through hiking, camping, and caving.

Association for Cultural Enhancement — An organization seeking to promote cooperation, fellowship and solidarity among student groups with a special concern for the needs of minority students on the Union campus.

Baptist Student Union — An organization to promote a strong religious atmosphere on campus and to serve as a support group for all students.

BLTN (Better Late Than Never) — An organization seeking to provide information, social outlets, counseling, and emotional support for non-traditional students (those who have experienced a gap between their secondary education and college or an interruption in their college careers).

BBUCL (Book Busters of Union College Library) — An organization seeking to encourage greater use of the Union College Library.

Campus Activities Board — A student organization to plan and manage the primary campus activities calendar and its scheduled events. The Campus Activities Coordinator serves as the main advisor. The board is funded through the Student Activities Fee.

Commuter Council — An organization seeking to explore the needs, interests, and problems facing non-residential students. The Commuter Council seeks to plan and manage activities and services for non-residential students. The Dean of Students serves as advisor to this council.

Fellowship of Christian Athletes — An organization designed to promote athletic involvement and spiritual growth.

Gamma Beta Phi — A national honor society promoting scholarship, leadership, and good citizenship at Union College.

International Student Association — An organization to provide an environment where students from different countries/cultures can exchange ideas/views and develop enjoyable friendships.

Intramural Council — An organization serving to plan and manage an active broad-based and competent program of intramural leisure sports activities for the women and men of the campus. The Intramural Director serves as coordinator and advisor to the Intramural Council.

Iota Sigma Nu — An honor society to provide recognition for honor students by uniting them in an organization which encourages high ideals, promotes diligence in study, and rewards excellence in scholarship.

Modern Culture Study Club — A group whose purpose is to study modern culture with an emphasis on the dramatic arts, through group discussions, films, readings, and lectures.

Newman Club — An organization seeking to provide fellowship for Christian students, particularly for Catholic students on campus.

Oxford Club — An organization to provide a fellowship of service and study for Christian students of Union College, and to provide opportunities for those students to put their faith into action.

The Paw Pack — An organization to encourage school spirit; increase campus participation in Union athletic events; and create a spirit of unity among students, faculty, administration and staff.

Phi Beta Lambda — A national business organization promoting scholastic achievement, service to the community, development of leadership potential, social interaction, and increased awareness of the business world.

Phi Delta Kappa — An international professional fraternity for men and women in education.

Pizzazzers — Seeks to provide entertainment for college athletic and community events through dance team performances.

Stespean — Seeks to produce a college yearbook.

Student Government Association — Provides opportunities for students to experience campus government and to examine quality-of-life issues of the campus. Seeks to assure reasonable due process in campus living.

Student National Education Association — A national pre-professional organization for men and women planning to pursue teaching as a career.

Union College Collegiate 4-H — Seeks to promote, exercise, maintain, and increase interest in 4-H, local through international levels.

Union College Science Society — An organization to stimulate interest in the natural sciences.

Union College Service Organization — An organization sponsored by Campus Ministry and supported by the Fellheimer Trust, which encourages and coordinates volunteer service on the campus and in the surrounding communities by students, faculty and staff.

Union College Singers — A vocal ensemble that performs in chapel, Christmas concert, spring concert, graduation, tours and festivals.

"Union Express" — Seeks to produce a campus newspaper.

Athletics

Union College is a member of the Kentucky Intercollegiate Athletic Conference (KIAC), the Mid-South Football Conference (MSFC), the Kentucky Women's Intercollegiate Conference (KWIC), and the National Association of Intercollegiate Athletics (NAIA). The college promotes athletics for physical development and as a vital part of the program of extra-curricular activities. The program emphasizes the protection of the best interests of the student athlete. Union teams are noted for "clean" sport and competitive spirit. Sport for fun and character building is fundamental. In intercollegiate competition for men, the College is represented by varsity teams in football, basketball, swimming, tennis, track, baseball, and golf.

Women may participate on intercollegiate teams in swimming and track, and have earned places on varsity teams in these sports in recent years. Separate women's teams are active in basketball, tennis and softball and compete against women's teams from other colleges and universities in the area.

In addition to the varsity sports competition for men and women, Union sponsors both a varsity cheerleading squad and dance team called the Pizzazzers. Both squads are made up of men and women and perform at home football and basketball contests.

Union College sponsors intramural activities in touch football, basketball, free-throwing, badminton, softball, tennis and volleyball to have a "sports for all" program. The intramural organization is, in general, made-up of men's and women's independent teams. The program includes both team and individual sports. No college credit is given for intramurals, but everyone is urged to take part.

Student Conduct

Each student is expected to conduct himself at all times according to the rules of good society. This obligation includes compliance with Federal, State and local laws and adherence to college regulations. As members of a free society, students are always free to peacefully and lawfully petition for amendment or modification of the various laws as well as the college regulations. However, the rights of the student body as a whole and the College as an institution of higher education supersede the rights of any individual student or any group of students. Accordingly, not in an attempt to stifle dissent, but rather to perpetuate an environment where the student may peacefully pursue his studies, actions which are disruptive to the normal functions and operations of the College will not be tolerated. Students who are disorderly in conduct, or unmindful of the rights of others, may be required to withdraw from the College.

No student shall posses or use alcoholic beverages when on college property or when away from the campus representing the College in any way, i.e., as a participant or spectator at a College athletic event or other college function. Any student violating this regulation may be required to withdraw from the College.

Union College students are obliged to show discretion, good judgment, and strong respect for Christian principle in all interpersonal relationships.

The sale, possession, or use of drugs or substances in violation of the Federal, State, or local laws is prohibited. Any student who illegally sells, possesses, or uses such drugs will be subject to criminal prosecution by the appropriate law enforcement agencies and also may be suspended or expelled. It is the announced policy of Union College to cooperate fully with the various law enforcement officials in the enforcement of the drug laws as with all other laws. A student's lawful use and possession of certain drugs prescribed by a qualified medical practitioner such as a physician, dentist, or optometrist is, of course, permitted.

Firearms and explosives of any kind are forbidden in the residence halls or on the campus. Students may be expelled for failure to abide by this rule.

Gambling in any form is strictly forbidden.

The complete Student Conduct Code is printed in UNION AND YOU, the Student Handbook. The Dean of Students serves as the chief discipline officer for student conduct for the College.

Union College expects good housekeeping from all on-campus resident students. Residents who fail to keep their rooms in satisfactory condition will have their housing contract revoked. The College reserves the right to enter and inspect the rooms of students at any time.

The academic conduct code is printed in UNION AND YOU, the Student Handbook. The Vice President for Academic Affairs is the chief academic discipline officer for the College. The Student Code defining procedures for dealing with academic dishonesty can be obtained in the office of the Vice President for Academic Affairs.

Social Life

Students are encouraged to accept every legitimate opportunity to engage in social functions. The faculty emphasizes the value of well-directed social activities. Student organizations, the faculty, and local churches make desirable contributions to the promotion of social life. The Dean of Students, through the Campus Activities Coordinator, is responsible for the initiation and direction of a comprehensive program of student social and recreational activities. All social functions are subject to the rules and regulations of the college.

Automobiles

Automobiles parked on campus must be registered in the Business Office. All must display a legible parking permit sticker. Stickers should be displayed in the rear window of the car on the driver's side. Cars should be parked in the assigned lots as designated by the Business Office. Violation of parking regulations may result in vehicles being ticketed or towed away at owner's expense. Parking for the handicapped is provided.

Health Service

Union College students may receive health service and advice from the County Health Office in Barbourville. Since the College does not have facilities for taking care of protracted illness, arrangements for hospitalization must be made by the student or his/her parents. When a physician is needed, the student may request the residence hall staff to call one; the fee is paid by the student. In case of emergency, the College reserves the right to employ a physician or to have a student hospitalized without consent of the parents. All full-time students are encouraged to secure coverage for an accident, sickness, and hospitalization plan if adequate insurance is not available through a family plan at home. All claims under a student's insurance plan are to be filed by the student and the attending physician and not by Union College.

The college does require that a student health service record be completed by a physician and placed on file with the College before beginning studies at Union.

Campus Housing

Stevenson Hall for men and Pfeiffer Hall for women are primarily double-occupancy facilities. A limited number of single/private rooms are available; preference for these rooms is granted by request to those students having earned the greatest number of credit hours. Twenty apartments are available for married students. All residents of Stevenson Hall, Pfeiffer Hall, and College Courts are required to sign housing contracts.

Students are expected to obey the terms of their housing contracts. A copy of this contract can be obtained in the office of the Dean of Students.

The residence halls are closed during vacation periods as specified in the academic calendar. Students will not be allowed to remain in the residence halls during vacations. Students will be required to turn in their keys during these stated vacation periods. Anyone failing to do so will be charged a lost key fee.

No student will be issued a room key, hallway, or outside door key unless he or she has previously signed a housing contract. Keys must be returned by the last day of the term of this agreement or the student's use of the

accommodations, whichever occurs first. Any student failing to return a room key and/or apartment key will be charged a ten dollar ($10.00) fee. A twenty-five dollar ($25.00) fee will be charged for loss of hallway or outside door key to cover the cost of changing the lock for the security of persons subsequently permitted the use of the accommodations.

All students twenty-one years or older, juniors or seniors (according to the Registrar's Office records), veterans, and married students are eligible to live off campus. Juniors and seniors under age twenty-one must submit written parental permission.

Religious Life

Union College takes seriously its identity as a church-related institution and is concerned that its students be made aware of the value of vital faith as well as academic excellence. We seek to be faithful to John Wesley's affirmation that a whole person is one who unites knowledge with vital piety.

Chapel worship services are held on campus weekly, are ecumenical in nature, and utilize the gifts and graces of the campus minister, other clergy, faculty, and students. Student are given many opportunities to participate i vesper services, prayer groups, Bible studies and other informal discussion groups and ar given ample opportunity and encouragemen to grow in their understanding of the Christia faith. The Religious Life Center, in the heart o the campus, provides a setting for informa worship, study, discussion, and fellowship.

The campus minister and other community clergy are available for personal Christia counseling.

The Willson-Gross Lectures and the Staley Distinguished Christian Scholar Lectures seek to bring outstanding speakers to the campus to discuss and provide information about the Christian faith. The Religious Life Committee composed of students, faculty, and staff, works with the campus minister as an advisory group to ensure that religious life programs are appropriate to the needs of the students and the campus community.

Students are encouraged to worship regularly in the church of their choice and to participate in the various denominational and faith-oriented groups on campus and in the community.

ACADEMIC CALENDAR 1989-90

Summer, 1989 - First Session

May 28, Sunday	Residence halls open for new students at 1:00 p.m. First meal - Supper
May 29, Monday	Memorial Day Holiday.
May 30, Tuesday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Classes begin on regular schedule.
June 1, Thursday	Last day for schedule changes. Last day to register for first summer session.
June 14, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 26, Monday	Orientation and Advance Registration for fall semester for new students.
June 30, Friday	Final Examinations. Advance Registration for second summer session.

Summer, 1989 - Second Session

July 4, Tuesday	Holiday
July 5, Wednesday	Advising and Registration. Late fee after this date. Classes begin on regular schedule.
July 7, Friday	Last day for schedule changes. Last day to register for second summer session.
July 19, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
July 31, Monday	Orientation and Advance Registration for fall semester for new students.
August 4, Friday	Final Examinations.
August 5, Saturday	Last meal - Lunch Residence halls close at 4:00 p.m.

Fall Semester, 1989

August 16, Wednesday	Last day to finalize advance registration for fall semester.
August 30, Wednesday	Meeting for new faculty members; 2:00 p.m.
August 31, Thursday	Faculty meeting/workshop; 9:00 a.m. - 4:30 p.m.
September 1, Friday	Faculty Meeting/Orientation and Registration Information; 9:00 a.m. - 12:00 noon Division Meetings; 1:30 p.m.
September 4, Monday	Labor Day Holiday.
September 5, Tuesday	Residence halls open at 10:00 a.m. First meal — Lunch Faculty meeting with officials from State Department of Education.
September 6, Wednesday	Advising for upperclassmen and freshmen having completed Placement Tests and Summer Orientation; 9:00 a.m. Students who have not completed Placement Tests and/or Summer Orientation follow schedule below: Placement Tests — 12:30 p.m. Fall Orientation — 3:00 p.m. Graduate Registration — 2:00-6:30 p.m.
September 7, Thursday	Registration for Fall Semester. Late fee after this date.
September 8, Friday	Classes begin.
September 11 - 15	Constitutes the first week for refund purposes.

September 14, Thursday	All-School Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel.
	Last day for schedule changes.
	Last day to register for fall semester.
October 25 - 26	Mid-semester Examinations (classes meet on regular schedule).
October 27, Friday	No classes.
	Mid-semester grades due by 4:00 p.m.
	Brunch and Supper only.
October 27 - 29	Mid-semester weekend; no classes.
	Residence halls remain open; food service available.
October 30, Monday	Classes resume.
November 6 - 10	Counseling sessions with advisors.
	Classes meet on regular schedule.
November 15, Wednesday	Last day to elect credit/fail option.
	Last day to withdraw from a course with a grade of "W".
	Advising and Advance Registration for spring semester.
November 21, Tuesday	Last meal — Supper
November 22, Wednesday	Residence halls close at 10:00 a.m.
November 22 - 26	Thanksgiving vacation; no classes.
November 26, Sunday	Residence halls re-open at 1:00 p.m.
	First meal — Supper
November 27, Monday	Classes resume.
December 8, Friday	Last day to finalize advance registration for spring semester.
December 9, Saturday	Final Examinations for Saturday classes.
December 11, 12, & 13	Final Examinations.
December 13, Wednesday	Last meal — Supper
December 14, Thursday	Residence halls close at 10:00 a.m.
December 15, Friday	Final grades for fall semester are due by 12:00 noon.

Spring Semester, 1990

January 3, Wednesday	Residence halls open at 1:00 p.m.
	First meal — Supper
January 4, Thursday	Academic Advising.
	Counseling and Orientation for new students.
	Placement tests for new students; 1:00 p.m.
	Graduate registration; 2:00-6:30 p.m.
January 5, Friday	Registration for spring semester.
	Late fee after this date.
January 8, Monday	Classes begin.
January 8 - 12	Constitutes the first week for refund purposes.
January 10, Wednesday	Last day for schedule changes.
	Last day to register for spring semester.
	Last day to apply for graduation.
January 18, Thursday	All-school Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel.
February 28 - March 1	Mid-semester Examinations (classes meet on regular schedule).
March 1, Thursday	Last meal — Supper
March 2, Friday	Spring vacation begins; no classes.
	Residence halls close at 10:00 a.m.
	Mid-semester grades due by 4:00 p.m.
March 11, Sunday	Residence halls re-open at 1:00 p.m.
	First meal — Supper
March 12, Monday	Classes resume.
March 13 - 16	Counseling sessions with advisors.
	Classes meet on regular schedule.
March 22, Thursday	Assessment Day. Adjustment in class schedule.
April 4, Wednesday	Last day to elect credit/fail option.
	Last day to withdraw from a course with a grade of "W".
April 5, Thursday	Honors Convocation; 10:30 a.m. — Conway Boatman Chapel
April 12, Thursday	Advising and Advance Registration for May Interim, Summer Sessions and Fall Semester.

April 13 - 16	Easter vacation; no classes. Residence halls remain open; food service available. Brunch and Supper only.
April 17, Tuesday	Classes resume.
April 28, Saturday	Placement tests for new summer session students.
April 30, Monday	Last day to finalize advance registration for May Interim.
April 30, May 1, & 2	Final Examinations.
May 4, Friday	Final grades for spring semester are due by 12:00 noon. Baccalaureate; 8:00 p.m.
May 5, Saturday	Commencement; 10:00 a.m. Last meal — Brunch Students not registering for May Interim must check out of residence halls by 4:00 p.m.

May Interim, 1990

May 6, Sunday	Residence halls open for new students at 1:00 p.m.
May 7, Monday	First meal — Breakfast Registration for May Interim. Classes begin on regular schedule.
May 8, Tuesday	Last day to register for May Interim. Last day for schedule changes.
May 11, Friday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
May 21, Monday	Last day to finalize advance registration for first summer session.
May 25, Friday	Final Examinations. Students not registering for first summer session classes must check out of residence halls by 6:00 p.m. Last meal — Supper
May 28, Monday	Final grades due by 12:00 noon.

Summer, 1990 - First Session

May 28, Monday	Residence halls open for new students at 1:00 p.m. Memorial Day Holiday.
May 29, Tuesday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Placement tests; 9:00 a.m. Classes begin on regular schedule. First meal — Breakfast
May 31, Thursday	Last day for schedule changes. Last day to register for first summer session.
June 13, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
June 25, Monday	Orientation and Advance Registration for fall semester for new students.
June 29, Friday	Final Examinations. Students not registering for second summer session must check out of residence halls by 6:00 p.m. Last meal — Supper
July 2, Monday	Final grades due by 12:00 noon.

Summer, 1990 - Second Session

July 1, Sunday	Residence halls open for new students at 1:00 p.m.
July 2, Monday	Advising and Registration. Late fee after this date. Classes begin on regular schedule. First meal — Breakfast
July 4, Wednesday	Holiday. Brunch and Supper only.

July 6, Friday	Last day for schedule changes. Last day to register for second summer session.
July 7, Saturday	Orientation and Advance Registration for fall semester for new students.
July 18, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
July 30, Monday	Orientation and Advance Registration for fall semester for new students.
August 3, Friday	Final Examinations. Last meal — Supper Residence halls close at 6:00 p.m.
August 6, Monday	Final grades due by 12:00 noon.

Residence halls will not close during the period from the end of Spring Semester through Summe
II. Food service, however, will not be provided during the short periods between these terms.

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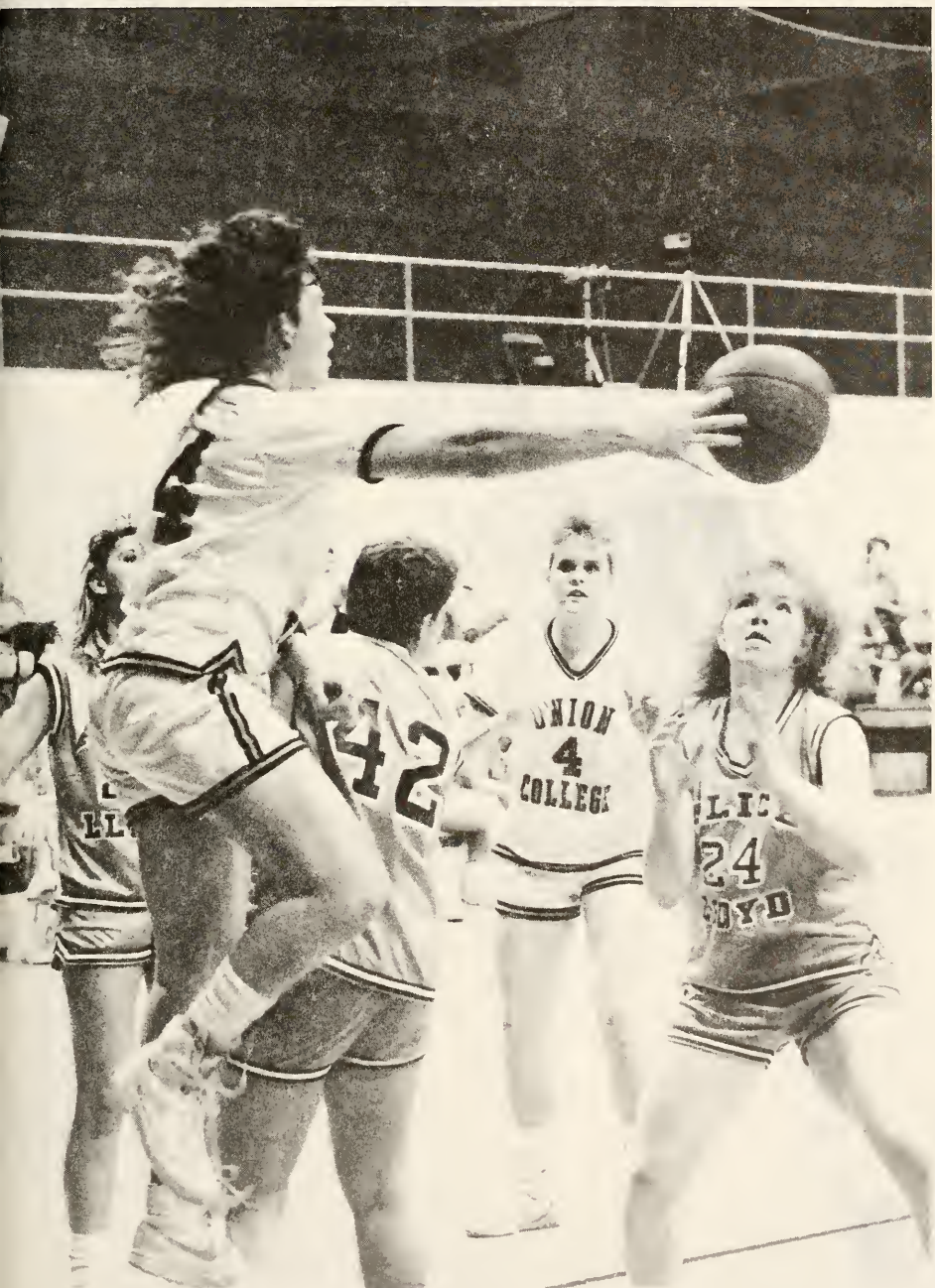

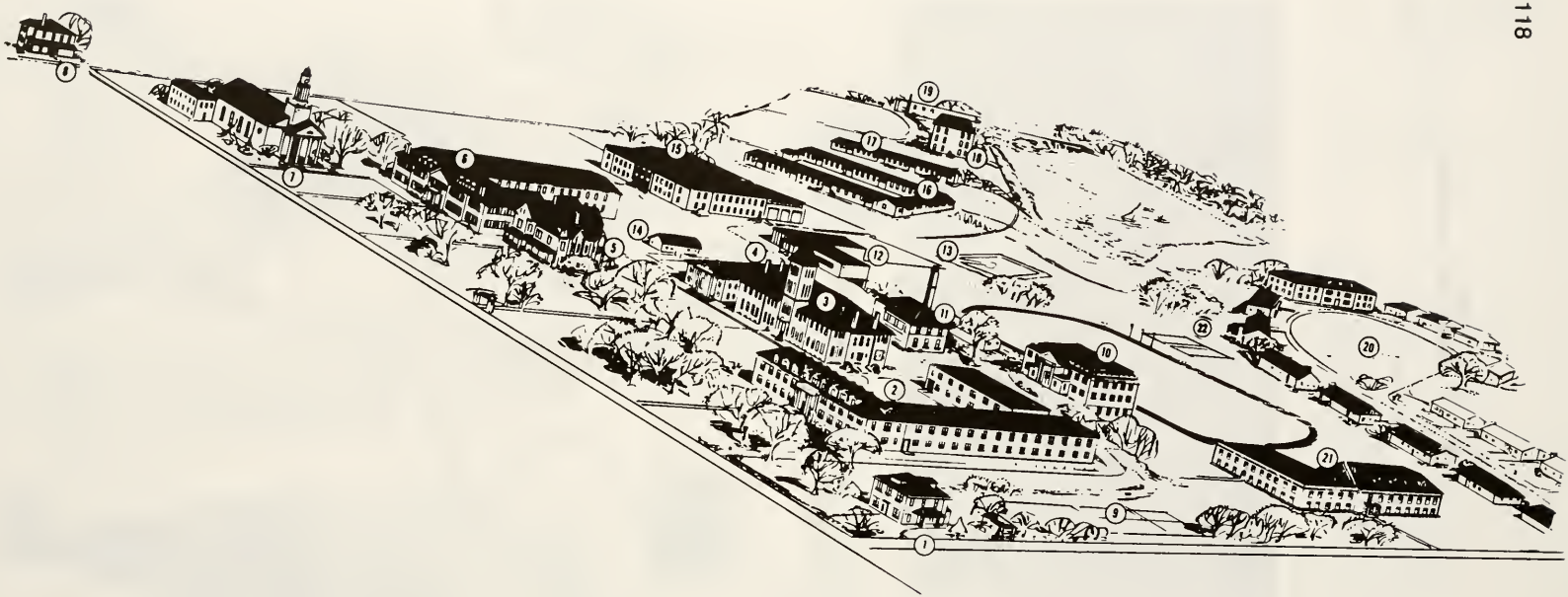

1. Baldwin Place, President's Residence
2. Stevenson Hall, Men's Residence
3. Centennial Hall
4. Library
5. Speed Hall, Administration Building
6. Pfeiffer Hall, Women's Residence
7. Conway Boatman Chapel–Fine Arts Building
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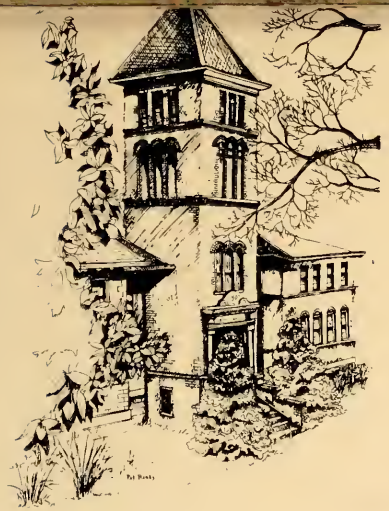

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DIRECTORY FOR CORRESPONDENCE

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Admissions Information ..... Director of Admissior
Admission to Graduate Program ..... Dean of Graduate Academic Affai
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Gifts and Bequests ..... Vice President for Developmer
Personal Welfare, Health of Students, Housing ..... Dean of Studen
Grants, Scholarships, Work-study and Loans ..... Director of Financial Ai
Transcripts, Academic Records, Veterans Affairs ..... Registra

TELEPHONE COMMUNICATION

A campuswide network of telephones enables the caller to reach any administrative or staff offic by dialing the central switchboard. After 11 p.m., emergency calls for students may be directed t their dormitory counselors.

Central Switchboard ..... **(606) 546-4151**
Counselor, Pfeiffer Hall ..... (606) 546-3421
Counselor, Stevenson Hall ..... (606) 546-3659
FAX number ..... (606) 546-2215

Union College is accredited by the Commission on Colleges of the Southern Association of College and Schools, the Kentucky State Department of Education, and is approved by the University Senat of the United Methodist Church.

It is the policy of Union College not to discriminate on the basis of sex, race, color, handicap, age or national or ethnic origin in the admission of students, in its administration of educationa programs, scholarships, loan programs, or other school-administered programs, or in athleti participation. Inquiries should be directed to Mr. Edward H. Black, Affirmative Action Officer.

)R. JACK C. PHILLIPS

Welcome To Union College

We welcome and invite you to examine Jnion College. Founded in 1879 by Barbourille citizens and purchased in 1886 by the Methodist Church, Union has as its chief mission a commitment to offer students the best n academic excellence in an atmosphere conucive to learning and living.

With an enrollment of more than 1,000 students,including both graduate and undergraduate persons, Union College is committed to xcellence in all phases of its life. The College ffers the Bachelor of Arts, the Bachelor of Science, the Bachelor of Music, and the Master of rts in Education Degrees. It also offers a Rank Program beyond the Master's level as well as arious associate-degree and certificate prorams.

Located on the historic Cumberland Gap Parkway, just 17 miles from I-75 at Corbin, KY, Union is the first College in this tri-state area. Union is proud of its more than 8,000 graduates with over 3,000 having the Master of Arts in Education Degree.

Our tradition reaches out to the students, and we are pleased that you are interested in our undergraduate program. As you peruse these pages, hopefully you will like what you see. Should you wish to enter our College, we believe your experience will be a profitable and happy one.

Sincerely,

Jack C. Phillips

Jack C. Phillips
President

A History of Service

Union College was founded in 1879 by a group of progressive citizens of Barbourville who formed a stock company and secured the main part of the present campus. In 1880, the first building was formally opened on the site of what is now known as Centennial Hall.

The College was purchased by the Kentucky Conference of the Methodist Episcopal Church in 1886, and Daniel Stevenson was made president of the reorganized institution. A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hall, and the Classroom Building (now known as Centennial Hall).

The college department was discontinued in 1908, and for eight years the institution was maintained as a Junior College, an academy, and an elementary school. It became a *bona fide* College again in the presidency of Ezra T. Franklin, who inaugurated a program of development during which the Memorial Gymnasium and a home for the president were built. In 1927, the College was accredited by the University of Kentucky as a four-year college of A grade.

President John O. Gross emphasized the improvement of the curriculum and the building of a strong faculty. In 1931, Union was accredited by the University Senate of the Methodist Episcopal Church, and in 1932, full accreditation was realized when it was made a member of the Southern Association of Colleges and Schools. The Board of Regents of the University of the State of New York placed Union College on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the College achieved marked progress in both its educational programs and in plant improvement. Seven new buildings were completed and others were enlarged. The curriculum was expanded, endowment funds were increased, and a markedly improved program of faculty salaries and benefits w adopted.

Mahlon A. Miller was elected to the pre dency in 1959. In 1960, a Master of Arts Education degree program was introduce and plant expansion continued with the d velopment of College Park, a faculty residenti area, followed by the construction of addition student housing, a physical education buil ing, a student center, and a science cente completed in 1973.

President Jack Carter Phillips began his d ties at Union College in January, 1983.

Dr. Phillips earned the Bachelor's Degree Birmingham-Southern College and the Mast of Divinity Degree at Vanderbilt University. H received an honorary Doctor of Laws Degr from Union College in 1981. He was lauded that ceremony for "notable achievement in t field of institutional fund raising and, in pa ticular, service to the colleges and universiti related to the United Methodist Church."

A native of Scottsboro, Alabama, Dr. Philli served in the U.S. Marine Corp from 1954 1957.

Under Dr. Phillips' leadership the college h experienced significant enrollment increas every year. A new 37,000 square foot libra addition with computer facilities and a mode well equipped learning resource center opene in 1987.

The College has always accepted a speci mission to Appalachia, a commitment which now being strengthened with unique academ programs based on regional characteristics, e panded student financial aid, student cor munity-service projects, and new caree oriented curricula.

The doors of Union College are open to who aspire to a more fulfilling life, witho regard to race, color, sex, handicap, nation or ethnic origin.

Interested and prospective students are e couraged to arrange a visit to the campus b calling the Admissions Office (606-546-4151)

STATEMENT OF PURPOSE
(Mission Statement)

ıion College is an independent liberal arts stitution of higher education, affiliated with e United Methodist Church. It is dedicated maintaining an academic and community vironment that stimulates intellectual curi-ty and scholastic competence, encourages understanding of and commitment to the ristian faith, and promotes the development values. Students are admitted to Union Col-ge without regard to race, color, creed, age, , or physical handicap.

Union College is committed to providing stu-nts with the resources necessary for a quality ucation. The faculty is characterized by und scholarship and a deep concern for the eds of students. Faculty advisors assist each ident to develop career goals and to select ademic courses of study appropriate to these als. Most classes are small, many types of ucational experiences are provided, and ac-emic, career and personal counseling are ailable. Students have access to a wide va-ty of scholarly and technical resources for eir education.

The academic program is designed to meet e College's mission of providing its students th the opportunity to increase their general owledge and understanding of the world ound them and to obtain the skills necessary compete in the job market. The basic un-rgraduate liberal arts curriculum makes ailable to students a large body of knowledge awn from the humanities, natural sciences, d social sciences. Union offers develop-ental and remedial programs in basic skills. ajors and areas of study prepare the student r a variety of careers and professional or grad-uate study. Plans of study in pre-professional, technical and skills-oriented fields enhance post-graduate employment opportunities. In addition, Union offers graduate programs in Education and associate degrees in various fields. These latter programs are offered to meet regional needs. A number of courses in both the undergraduate and graduate programs are taught off-campus in various communities within the primary service area of the College. Finally, the College also has credit and non-credit continuing education courses for the community.

Central Appalachia is Union's primary service area and home to the majority of the College's students. Union affirms a special concern for improving the quality of life in Appalachia and the College strives to serve the region in a number of ways. Technical and skills-oriented plans of study are designed to improve the human resources of the region. The undergraduate and graduate Education programs help meet the personnel needs of the public school system. In order to educate people about Appalachian life, traditions, and problems, Union offers Appalachian studies aimed both at local students and visiting students from other institutions. To further its mission of helping the community, a number of programs are made available to area residents, including the educationally disadvantaged. Many College staff members also participate in community service. Finally, Union trains students for service-oriented professions in this region, including teaching and the ministry, and serves as a cultural center for the community.

GOALS FOR GENERAL EDUCATION

A. COMMUNICATIONS SKILLS

A primary goal of Union College's academic program is to help students develop and improve their communications skills. This includes both *expression* (the ability to convey information and ideas to others) and *comprehension* (the ability to receive and understand information and ideas conveyed by others). An acceptable level of *expression* includes the ability to write and speak in a clear and cogent fashion, while *comprehension* requires the ability to read college level material, listen to lectures and retain and understand the content of the material presented. Therefore, a Union Student should, by graduation, be able to:

1. write a clear and cogent essay based on his or her own ideas which obeys the basic rules of grammar, spelling, and punctuation;
2. prepare and deliver a logical and organized oral presentation;
3. read and integrate information into previously acquired knowledge; and
4. listen to a lecture or presentation and recall and understand the major points.

B. ETHICS AND VALUES

As an institution related to the United Methodist Church and one fostering Christian values, Union College does attempt to develop ethical standards as an important part of any student's education. Students should learn to think about and discuss values and ethics and become aware of the major religious and ethical perspectives of humankind. The College encourages an awareness of the Christian faith and believes that students should develop a tolerance toward the viewpoints of others. Upon graduation, the Union student should be:

1. familiar with today's major religious and ethical ideals, and how they developed;
2. tolerant toward and respectful of these different views and ideals; and
3. able to think about and articulate problems and issues related to ethics and values.

C. GENERAL KNOWLEDGE

No education is complete without the acquisition of a solid base of general knowledge. Without such knowledge, the student will not be capable of developing his or her thinki and reasoning abilities. With this knowledg students will have a storehouse of informati that will help them more effectively to e change ideas, thoughts, and feelings with ot ers. The constant expansion of and change the corpus of information means that it wou be futile to attempt to define precisely on long-term basis what a student should kno Nevertheless, there are certain areas wi which the student should be familiar, at lea in general terms. By graduation, the Union st dent should have:

1. an ongoing interest in and appreciati for music, literature, and the arts, and t traditions on which these fields a founded;
2. an informed acquaintance with the nat ral and social sciences and technolog and a general awareness of their conti uing impact and development throu the ages; and
3. acquired reasonable mathematical a quantitative skills.

D. CRITICAL THINKING AND PROBLE SOLVING

The ability to think critically and to analy and solve problems is an absolutely essent skill. In an increasingly complex world ch acterized by a constantly expanding flow information, it becomes more and more n essary for educated persons in every field be able to arrive at responsible and consider decisions. A college graduate who lacks the abilities is unlikely to succeed in any area endeavor. Thinking and analysis develop o many years and cannot become fully dev oped during an undergraduate career. Uni desires that its students make progress in t direction, however, by developing or impr ing upon their ability to:

1. understand abstract ideas;
2. analyze problems that involve compl sets of facts and relationships; and
3. think and reason in a critical, logical, a objective fashion.

E. CONTEXT

Understanding the modern world depen upon an adequate comprehension of the for that continue to shape societies. There a

many different interpretations of and explanations for the current world situation, and students are free—and encouraged—to develop their own opinions. During the college years, students have the opportunity to learn about the context of modern civilization—its antecedents and structure. By the completion of their undergraduate program, students should have:

1. increased their understanding of how the modern world works, including its peoples' increasing interdependence;
2. acquired a basic knowledge and appreciation of other cultures; and
3. developed an interest in, and comprehension of, current events and their history.

F. LEARNING SKILLS AND PERSONAL DEVELOPMENT

The development of learning skills and personal development are important goals of all programs at Union College. In addition, courses are offered which are specifically designed to develop learning skills where these are lacking, assisting students to"learn how to learn". Students are also expected to become familiar with ways in which the library supports and complements a liberal arts education and how libraries can serve them throughout their lives. All students are offered the opportunity to use computers to assist their educational experience and to learn how the computer can be useful to them personally.

Commitment to the goal of personal development is evidenced at Union College by the requirement that all students extensively experience the liberal arts. Of special importance is Union's mission to serve the Appalachian people by making a liberal arts education available to the community. Students graduating from such a program will have developed a degree of confidence in their ability and will be prepared to go on in life with the expectation of success in a chosen endeavor. Appalachian students will also develop an increased appreciation of their own culture, place, and importance in the world.

A STATEMENT OF VALUES

Union College is dedicated to preparing students for living informed, socially useful, personally fulfilling, and spiritually vital lives. This commitment involves using knowledge within a context of Christian values. Although it is recognized that as an educational institution Union College has an obligation to help students understand other value systems and their effects when translated into specific areas of human activity, as a United Methodist Church-related college Union affirms an institutional stance based on Christian values such as have evolved in the Judeo-Christian tradition and are contained in the Old and New Testaments. Our intent is both to confess and to practice the christian faith in all our endeavors.

IMPLICIT IN THIS STATEMENT OF VALUES IS THE REQUIREMENT THAT UNION COLLEGE COMMIT ITSELF TO THE VALUES ENUNCIATED BY ASSURING TO THE MAXIMUM EXTENT POSSIBLE:

To Its Students

(1) the fullest of opportunities to receive a quality liberal arts education.

(2) strong attention to, and genuine concern for, each individual in the college community, including emphasis upon the unique value of each person.

(3) a continuing concern that they learn to appreciate and accept life styles that reflect integrity, honesty, compassion, and social responsibility.

(4) a commitment to provide the experiences necessary to acquire a meaningful understanding of and dedication to Christian love and service to both God and neighbor.

To Its Faculty and Staff

(1) a campus atmosphere of responsible academic freedom dedicated to the constant search for truth.

(2) an academic community dedicated to openness and acceptance of its pluralistic composition, including personnel policies and practices that are recognized without regard to race, creed, sex, color, physical handicap, or national origin.

(3) a constant reminder of the power of Christian example.

To Its Alumni, Benefactors, and the Parents of Its Students

(1) faithful and responsible stewardship of all funds and gifts entrusted to the College.

(2) continuance of meaningful traditions, particularly those unique to a church-related institution, while at the same time encouraging the exploration and implementation of new value-centered activities especially of the type that have strong Christian relationship.

(3) continuing appreciation for the rich heritage of Union College as an independent, one-sectarian, church-related institution in the Christian tradition.

To The United Methodist Church

(1) acceptance of Jesus Christ as God's revelation of Himself, and of the Holy Spirit as God's continuing presence in life.

(2) acceptance of the moral standards which have evolved in the Judeo-Christian tradition as our ideals for living, working and witnessing in an academic community and as the standards for our teachings and personal example.

(3) sensitivity to and a conscientious effort directed toward the satisfaction of the spiritual needs and concerns of the college's students, faculty, and staff.

(4) meaningful responsiveness to and support for the United Methodist Church.

To Barbourville, Knox County, and the Appalachian Area

(1) continuing appreciation that Union College is an integral, social, educational, and spiritual part of the Barbourville and Knox County communities, and of Appalachia.

(2) dedication of the college's resources in teaching, research, and service to the enrichment of the communities of which Union College is a vital part.

(3) a commitment of the personal resources represented by the college's students, staff and faculty to local churches of the immediate and larger community.

ADMISSIONS AND GENERAL INFORMATION

ADMISSION REQUIREMENTS

The criteria for admission are used to identify those who are most likely to complete a college program of studies. The Admissions Office evaluates each applicant on an individual basis and acceptance decisions are determined on the quality of academic achievement; high school grade point average, class rank, and the scores of the ACT (American College Testing Program) or SAT (Scholastic Aptitude Test of the College Board).

Applicants are required to submit an official transcript from an accredited secondary school, or a high school equivalency certificate based on the GED tests. The secondary school transcript should include four years of English, two years of mathematics, two years of social studies, and two years of science. The study of a foreign language is recommended.

Union College requires that an **official** transcript from each college or university attended be forwarded to the Admissions Office before an admission decision is made.

The College processes applications on a rolling admissions basis. An application is considered complete when all academic credentials including the secondary school and/or college transcript(s), and results of the ACT or SAT have been received.

Procedures For Admission

Application for Admission

The application for admission is available from the Admissions Office, Union College, Barbourville, KY 40906. A processing fee of $5.00 is required before an application will be considered for admission.

Enrollment Deposit

After official notification of acceptance to the Fall semester, all new students are required to submit a $25.00 enrollment deposit which is applied toward tuition. This deposit is refundable until August 1. If you are applying for Financial Aid your deadline is extended until you have been notified of your award. At the time of acceptance of your financial aid award you have two weeks to submit your enrollment deposit.

Secondary School Transcript

Each applicant must authorize the release o his or her transcript by signing the applicatio form. The Admissions Office will write to th applicant's high school for an official copy o the transcript.

Entrance Tests

All candidates are required to take the Amer ican College Test (ACT) or the Scholastic Ap titude Test (SAT). Applicants should have th results forwarded to Union College. The Unio College institution number is 1552 for the AC and 1825 for the SAT.

A test application blank and bulletin of in formation may be obtained from the secondar school guidance office or from Union's Ad missions Office.

Union College will record a summary o transfer credits, indicating the total number o hours accepted and the quality point averag at the sending institution. Union accepts onl transfer work in courses with a grade of "C" or above. This policy applies only to credits transferred on a course-by-course basis, not t junior college students who transfer entire de gree programs.

Summer Orientation

A one-day Summer Orientation program is required for all students who are entering Union College for the first time.

The program includes placement testing, academic advising, registration, and financial aid counseling and is designed to help students make a successful transition to college.

Admissions Information for Other Programs

High School Junior Program

A student who has completed the junior year of high school may qualify for the High School Junior Program. The student must have a "B" average and must pass ALL sections of the Placement Test given by the College to be admitted to the program. Students who have a composite of 21 or above on the enhanced ACT are exempt from taking the Placement Tests. Two letters of recommendation are required. The student may then enroll for 6 hours or less in any one term for one-half the established summer rate. This scholarship terminates when the student graduates from high school.

GED Acceptance

An applicant may be admitted on a high school equivalency certificate based on the General Education Development Tests, provided that the scores earned are equal to or above the minimum recommended for college entrance by the American Council on Education.

Advanced Placement

Students who have successfully passed one or more of the Advanced Placement tests of the College Entrance Examination Board may ask for advanced placement and credit when they submit their application. The Office of the Registrar will decide on the amount of credit to be granted and the college course that may be considered for equivalency. A Score of 3, 4, or 5 is required for such action.

Early Start Senior Summer Program

A high-school graduate who has not attended college since graduation may be eligible for the Early Start Senior Summer Program. To qualify a student must meet admission standards required of all students, must graduate in the upper 50% of his or her class, and must have a minimum ACT English score of 19 or SAT Verbal of 410.

Accepted students who enroll for courses in either summer session will be provided a scholarship for one-half of the tuition charges. If the student enrolls for and completes twelve hours during the summer sessions, there will be no room charge to live on campus. All students must pay a $50.00 refundable room deposit.

Students who enroll in and complete twelve hours of college credit with a grade point average of 3.0 ("B" average) will receive a $250.00 scholarship as a full time student in the fall. If the 3.0 average is maintained in the fall, the student will receive another $250 scholarship in the spring. After the spring semester, the scholarship terminates.

Admission of Adult Students

Students 25 or older are not required to furnish ACT or SAT scores. Applicants who lack the GED are urged to contact Union's Adult Education office for assistance.

Admission of International Students

Foreign students must complete the regular admission process (ACT or SAT is not required of foreign students). A non-refundable application fee of $25.00 should accompany each application for admission to the College. After the student is accepted, the College must receive payment for the student's first semester costs for tuition, room and board, and fees. This payment must be received at least one month before the beginning of the semester. The student will not be allowed to move into the dormitory or register for classes until payment is completed.

In order to be considered for admission, a foreign student must show English proficiency with a minimum score of 500 on the Test of English as a Foreign Language (TOEFL), or 107 on the ELS English Proficiency, or 70 on the Michigan English Placement Test.

When the admission process is completed, a foreign student is obligated to stay at Union for at least one year. No official transcript or recommendation will be released until the student fulfills the year's obligation. If a student leaves before one year, he must be reported to the Immigration and Naturalization Service. One year is interpreted as two full semesters, excluding summer sessions.

The student must pursue a full course of study. Those who drop to part-time status must by law be reported to the Immigration and Naturalization Service. No visas and/or passports will be renewed until the student's account is paid in full.

Transfer Policy

The transfer applicant is required to submit:

1. An application for admission.
2. An official, sealed transcript from each college previously attended.
3. An official high school transcript and ACT or SAT scores are required of all students transferring fewer than thirty semester hours. Students transferring more than thirty semester hours are exempt from the Placement Tests.

A transfer student applying to Union College must be in good standing with the previous college and be eligible to return to that school.

Sixty-seven semester hours is the maximum number of hours that will be accepted from a junior college. For a baccalaureate degree, transfer students must satisfactorily complete thirty semester hours at Union College. For an associate degree, a transfer student must satisfactorily complete eighteen semester hours at Union College.

Transfer credits will be accepted at the level of the initiating institution. Therefore, a stu-

dent transferring from a two-year institution must accumulate forty-two semester hours of upper division credit while a student at Union College before they are eligible for graduation. Of that work, at least six semester hours must be included in any twenty-four hour major twelve semester hours must be included in any thirty hour major; and at least eighteen semester hours of upper division course work must be included in any fifty-four hour major or in an area of concentration.

FINANCIAL AID & FEES

TUITION AND FEES

College Expenses

The academic year is divided into two regular semesters, Fall and Spring. In addition, a special May Interim and two special summer sessions are offered, convening in the months of May, June and July respectively. Applicable tuition and fees are as follows.

Undergraduate Expenses (per regular semester)

Tuition (12 to 17 semester hours) and Activity Fee	$2,710.00
Room and Board* (19-meal week)	$1,205.00
Private Room (Additional)	$ 105.00
Total for Boarding Student —Regular Room	$3,915.00
—Private Room	$4,020.00
Part-time tuition for registering less than 12 or more than 17 semester hours, per semester hour	$ 130.00

(Undergraduate students over age of 50 pay 50% of the established tuition rate.)

Graduate Expenses

Full-time tuition (12 to 17 semester hours)	$2,710.00
Part-time tuition (per semester hour)	$ 130.00

Summer Session Expenses 1990

Tuition, Undergraduate (per semester hour)	$ 130.00
Tuition, Graduate (per semester hour)	$ 130.00
Room and Board (19 meals per week) each term, 5 weeks**	$ 375.00
Room and Board (Sunday dinner through Friday lunch — 15 meals per week) each term**	$ 315.00
Private Room, each term (additional)	$ 30.00

May Interim Term Expenses 1991

Tuition, Undergraduate (per semester hour)	$ 130.00
Tuition, Graduate (per semester hour)	$ 130.00
Room and Board (19 meals per week)	$ 230.00

Note: May Interim tuition may be waived for a full time student who carries 14 semester hours or less in the preceding spring semester.

Other Expenses

The fees listed below are not a part of the traditional tuition and board and room charges.

Audit Fee (per semester hour)	$ 15.00
Late registration fee***	$ 15.00
CLEP (per test)	$ 35.00
CLEP Credit Recording fee (per course equivalent for Subject Tests only)	$ 25.00
Portfolio Fee (per semester hour)	$ 30.00
Contract Course (per semester hour)	$ 25.00
Examinations: late final examination fee	$ 15.00
credit by examination (Institutional) (per credit hour)	$ 25.00
Graduation Fees: Associate degree or Diploma	$ 25.00
Bachelor's degree	$ 30.00
In absentia	$ 25.00
Music Lessons: Part-time and Special Students (per semester hour)	$ 80.00
Applied Music (per semester hour)	$ 65.00
Private Lesson (Continuing Education) (per semester hour)	Varies
Transcript-after first copy (one week's notice required)	$ 3.00
Student Teaching Fee	$ 100.00
Special Lab or Studio Course	$ 25.00
College Court Rental, per month (all utilities furnished)	$ 150.00

acation periods are not included in the above quotations. ormitories and food service are closed during vacations and ier periods as noted in the undergraduate calendar. The llege reserves the right to entertain delegates to conventions d other related groups in the residence halls during vacation riods. Students will be notified in advance of such contem- ated occasions and assurance given regarding the safeguard- of their personal property during such occupancy.
All board charges are subject to change without notice, pend- contract agreement with the food service.
Late registration fee can be waived by the Registrar for suf- ient reason if permission is requested in advance.
penses for May and Summer Sessions are effective June 1, 90.
ition, Fees and other expenses are subject to change. All arges will be announced in the class schedule or through e media.

AYMENT POLICY

I. Financial Clearance

A student will be cleared for registration only any previous balance has been paid. The new mester's account must then be paid in full, a signed payment plan and first installment mpleted. Summer school and short sessions ust be paid in full at the date of registration no payment plan is permitted for summer short sessions.

Authorized financial aid will be credited to e student's account and a payment plan set o for the balance. In case the financial aid is ticipated but not yet authorized, the student ust pay as a first installment one third of the **tal** costs.

A student having any unpaid balance will ot be cleared for the release of an official port of grades, a transcript of credits, or a ploma.

I. Finance Charge

A monthly finance charge of one and a half rcent (19.5% annual rate) will be added to e unpaid balance on all student accounts at on on the last working day of each month.

I. Payment Plan

If the new semester's account cannot be paid fore registration, a payment plan can be com- eted and a first installment paid down. The ayment plan requires one-third payment on ch of the following dates after which the stu- nt may be withdrawn from courses if the count is not paid up:

1. On or before fall semester or spring se- ester registration — one-third.
2. Due October 5th (fall semester) or Feb- ary 5th (spring semester) — one-third.
3. Due November 5th (fall semester) or arch 5th (spring semester) — one-third + /2% finance charge on the balance.

Any student who owes a balance on his or her account after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

REFUND INFORMATION

Since faculty contracts and other commitments are made by the college for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

1. A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.
2. A full refund may be obtained for a class only if a student has not attended beyond the first session and completes drop/withdrawal procedures with the Office of the Registrar.
3. Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.
4. Tuition and room charges will be refunded on the following basis:

   Regular Semester — Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week. Refund is based on the tuition charges less $10 student center allocation, $1 class dues, $1 student senate fee, $3 for I.D. card, and $25 activity fee.

   Summer and Short Terms — Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.
5. **Refund of Overpayment on Student Account** — If a student makes an overpayment on his or her account, a written request for refund must be submitted to

the Business Office within one year after the end of the last academic term for which the student was enrolled.

6. **Room Reservation Deposit** — This deposit will be refunded if the request is made in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor no longer enrolled as a student at Unio College and that he or she has left th housing facility undamaged and does n owe other bills. The request for this au thorization must be made within one yea after the end of the academic term fo which the student was enrolled.

7. **Enrollment Deposit** — $25.00 will be re funded upon receipt of written reques prior to August 1 for the fall semester o 30 days before the first day of class for an other academic session. Refund reques should be submitted to the Admission Office.

FINANCIAL ASSISTANCE

Student expenses. In planning to attend Union College a student should expect the following typical expenses for an academic year; tuition and general fees $5,420, room $660, board $1,750, books and supplies $450. In addition, allowance should be added to these figures for personal expenses, medical insurance, transportation, and extra charges for special courses (such as laboratory fees, etc.). The Office of Student Financial Aid will consider the total costs for attendance, including the items listed above, when making a financial aid commitment.

Purpose of financial aid program. In addition to its own scholarship funds, Union College participates in all federal programs including the Pell Grant program. Residents of Kentucky are also eligible to receive state tuition grants and loans. Information on Union College scholarships will be found on the following pages.

Students applying for financial aid are considered for all programs for which they are eligible. The amount of financial aid awarded is generally a combination of grant, loan, and employment, and is based on the financial need of the student. Need is determined by subtracting the resources of the student and the contribution of his or her parents from the total student expenses. The parents' contribution is estimated on the basis of the amount of their income and assets as well as a consideration of taxes, medical expenses, and other liabilities of the family. An independent, objective, nationally recognized method of analysis developed by the College Scholarship Service is used to evaluate the family's financial circumstances. All financial aid awards to students are determined by Union College's Office of Student Financial Aid.

Procedures for applying for financial aid. Students must apply for financial aid by submitting a Financial Aid Form (FAF) to the College Scholarship Service. Students applying by March 15 will have a greater opportunity. However, financial aid will still be available after this date.The FAF is used to apply for the Pell Grant, the Kentucky Tuition Grant, the Supplemental Educational Opportunity Grant (SEOG), College Work-Study, Perkins Loan (formerly National Direct Student Loan) and any institutional funds.The FAF may be obtained from a high-school guidance office or the Office of Student Financial Aid. Students should specify 1825 as the code number for Union College in the appropriate section of the FAF.

A Financial Aid Notification along with information about any aid offered will be sent from Union College to each student who applies.

Procedures for reapplying for financial aid. A student must reapply for financial aid each academic year. However, aid usually continues at the same level each year unless a student's resources or the expected contribution of their parents change. All enrolled students receiving aid automatically receive information about applying for renewal awards. Other enrolled students should request applications by February 15.

Students who fail to maintain a satisfactory level of achievement may not receive the following types of financial aid: Pell Grants, Supplemental Education Opportunity Grants (SEOG), KHEAA State Grants, Union College Scholarships and Grants, College Work Study, Perkins Loans, Stafford Loans (GSL), PLUS/SLS Loans, other aid involving federal or state sources and funds associated with Union College. A student whose academic performance falls below acceptable guidelines of the college may be placed on academic probation. A student can keep financial aid during the first semester on probation, however, if they continue on academic probation for a second consecutive semester, or fail to complete 50% of the credit hours enrolled they will not retain financial aid. Students are eligible to receive financial aid for a maximum of ten semesters.

A student will receive written notification if financial aid is to be withdrawn. Students who have financial aid withdrawn may appeal to the Admissions and Academic Standing Committee by submitting a letter stating why satisfactory progress was not maintained and any other reasons why aid should not be withdrawn.

Grants

Pell Grant — A program providing direct grants from the federal government. The student receives an eligibility report (as a result of his or her Financial Aid Form application) which can be submitted to Union College for

payment. It is expected that the maximum amount for the Pell Grant for 1990-91 will be $2,300.

Supplemental Educational Opportunity Grant (SEOG) — A program designed by the federal government to assist undergraduate students with exceptional financial need (with priority given to Pell Grant recipients). The grant is permitted to range up to $4,000 per year depending on need and availability of funds.

Kentucky Tuition Grants — The program provides grants to students who are residents of the Commonwealth of Kentucky and who demonstrate a need through the analysis of the Financial Aid Form application. The maximum grant for 1990-91 will be $1,840.

Employment

College Work-Study Program — If a student still requires financial support to meet college costs after the federal and state grants are awarded, the student may be given the opportunity to earn an amount on an hourly basis in a campus department. This employment program is campus-based support from the federal government. Either undergraduate or graduate students can qualify if the Financial Aid Form results indicate a need.

Work-Grant — If a student cannot qualify for employment on the basis of financial need and the College needs the special skills of the student, the student can work for an amount of tuition waiver.

Coop Program with Tremco, Inc. — is available to a qualified sophomore, junior, or senior majoring in chemistry.

Loans

Perkins Loan (formerly National Direct Student Loan) — Federal loan funds are made available to students who have financial need and who maintain satisfactory progress towards graduation. Repayment at a 5% interest rate begins, for new borrowers, nine months after graduation or withdrawal from school.

Stafford Loan (formerly Guaranteed Student Loan) — This loan program exists in Kentucky and other states as a way to borrow from private commercial lenders to finance college education on the undergraduate and graduate levels. Repayment at 8% interest begins 6 months after graduation or withdrawal. Minimum payments are $50.00 a month. Eligibility depends upon at least half-time enrollment status, making satisfactory academic progress and a reporting of family income by filing the FAF.

United Methodist Student Loan Fund — Students who are members of the United Methodist Church and maintain a "C" average may apply through Union College for a loan at 6% interest from the Board of Education of the United Methodist Church.

Charles M. and Mary D. Grant Loan Fund — The Charles M. and Mary D. Grant Foundation has provided an endowed loan fund for Appalachian students who demonstrate a real need and who are in good standing at the College.

Hensley Emergency Loan Fund — Mr. and Mrs. Burton F. Hensley of St. Cloud, Florida have established a loan fund for single students at Union College who have emergency situations requiring small short-term loans.

The Rev. and Mrs. Erwin King Loan Fund — The Rev. and Mrs. Erwin King have established a loan fund to aid worthy ministerial students in the junior or senior year at Union College.

Guy H. Williams Loan Fund — Dr. Guy H. Williams of Cleveland, Ohio, has established a loan fund in memory of his wife, Anna Williams. The fund is available to worthy students who have spent two years at Union College and have a "C" average or better.

The Beverly P. and Mossie B. Wilson Loan Fund — This loan fund has been established by Dr. and Mrs. O. J. Wilson of Louisville, Ky., in memory of Dr. Wilson's mother and father. The loans shall be given to students majoring in English and repayment shall be in accordance with the guidelines or the College's loan fund. The income from this fund shall come from the Beverly P. and Mossie B. Wilson Trust Fund.

The Charles Henry and Glennora Rominger Krieger Student Loan Fund — This loan fund, established by the late Glennora R. Krieger of Ft. Thomas, Kentucky, provides loans to worthy and needy students from the Appalachian counties of eastern Kentucky. The terms of the loan are the same as those of the United Methodist Student Loan Fund.

Other Loan Funds — Student loans are available from a number of funds not specifically designated for Union College students, but for

vhich Union College students are eligible. Spe-ific information may be obtained from the Of-ce of Financial Aid.

nstitutional Grants/Scholarships

United Methodist Church Grants-in-Aid — Jnion College will provide grants of $1,000 for ull-time United Methodist students and will equest the student's home church to match he grant. If the student plans to go into the Methodist ministry or if the student is a de-pendent of a Methodist minister, then a $1,000 grant will be provided by the College. We en-ourage recipients to request matching funds rom their local church.

The grants are for one year, renewable, and nay be applied to any Union College charges tuition, fees, room and board on campus). A tudent is eligible for only one of the above grants.

College Employee Scholarships — Full-time mployees of Union College are eligible for tu-tion remission scholarships. Full-time employ-es hired after January 1, 1975, will not be ligible for tuition scholarships for spouse or hildren until they have been employed for six nonths unless they are under annual contract. The spouse and unmarried children of full-time mployees hired after June 1, 1982 may receive Union College employee Dependent Schol-rship equal to 50% of the tuition, charges, with o charges for auditing a course. Other fees re charged in full. Employee Dependent Scholarships will not be granted to children for graduate work. Application for a scholarship nust be made through the Financial Aid Office rior to the registration date each term. The Kentucky Financial Aid Form (KFAF) must be iled to determine eligibility for federal state aid before an Employee Dependent Scholarship will be awarded. A tuition grant at other col-eges participating in the Tuition Exchange Pro-gram is also available to employees' unmarried dependent children.

Assistantships

Senior Assistantships are available an-nually. Students must: be enrolled full time, have completed ninety-six hours with a 3.0 minimum grade point average overall and in their major. The duties of the Senior Assistants include occasional classroom lectures, research, remedial work with beginning students, assisting in laboratories, etc. The assistantships are not intended to cover clerical duties. The assistants are expected to spend up to eight hours per week on the work assigned with the awards ranging up to $1,000 per year. The awards are made by the Scholarship Committee. Candidates are to be recommended by the division chairperson by April 1.

Scholarships

Academic Scholarships for new, full-time freshmen are based upon academic achievement and the results of the ACT/SAT. A range of scholarships are available with the most prestigious award, the Union Scholar Award, being worth up to full tuition each year. These scholarships are renewable based upon a minimum grade point average for each scholarship category.

Valedictorians and Salutatorians are awarded $2,000 and $1,500 respectively and must achieve a score of 24 and 23 on the ACT or 1000 and 970 on the SAT. An official high school transcript with class rank and certified by the high school attended must be submitted. These scholarships are renewable each year by maintaining a 3.2 cumulative grade point average, or at two-thirds of the original amount for a 3.0 minimum average.

A student receiving a Valedictorian or Salutatorian award will not be eligible for the academic scholarships or the "Top 10%" award. However, a student who does not receive a Valedictorian or a Salutatorian award may receive an academic scholarship or the "Top 10%" award or both.

Junior College Scholarships — in the amount of $500 are awarded to graduates of junior or senior colleges who have earned the A.S. degree with a grade point average (GPA) of at least 2.5 on a 4.0 scale. These scholarships are renewable in the senior year at $500 if the student maintains this average, or increase to $600 if the student increases his grade point average to 3.0.

Alumni Scholarships — The Alumni Association of Union College awards three scholarships of $1,000 annually. These scholarships are given on the basis of character, need, and evidence of future usefulness. They are open to all full-time undergraduate students with a minimum 2.8 GPA.

Dr. and Mrs. Edward S. Amis Endowed Scholarships — Dr. and Mrs. Edward S. Amis of Fayetteville, Arkansas, have endowed a scholarship fund at Union College. Dr. Amis received the Distinguished Alumni Award in 1985. The two $500 grants will be given annually to two full-time Christian-service students who excel in local church programs.

The Ashland First United Methodist Church Scholarship — The members of the First United Methodist Church of Ashland, Kentucky have endowed a scholarship for a "worthy student", preferably a member of this church. If no member-students are eligible, the scholarship may be awarded to any United Methodist student from Kentucky.

The George L. Bagby Scholarship/Loan Fund — The late Mr. George L. Bagby of Woodford County, Kentucky, established a student financial aid endowment totaling $405,000 including accumulated interest, and this supports both scholarships and loans for Kentucky students.

Bank of Harlan Scholarships — A number of scholarships are given annually to qualified students from Harlan County by the Bank of Harlan. The grants are determined according to financial need and academic excellence.

Barbourville Kiwanis Scholarship — The Kiwanis Club of Barbourville, Kentucky, has supplemented an educational fund originated by Mr. C. F. Heidrick and established a scholarship fund at Union College for promising students from Knox County, Kentucky. The scholarship is for $700.

Barbourville United Methodist Church Music Scholarships — Annually the First United Methodist Church of Barbourville, Kentucky, awards four scholarships of $200 (for a total of $800) to music students. Consideration is given for participation in the music program of the local church.

Bell County Scholarship — A friend of Union College from Bell County, Kentucky, has established a scholarship endowment with the income to be awarded annually to a Bell County student. This grant will be approximately $350 per semester.

Bryon B. Berry Appalachian Scholarship Endowment — Byron B. Berry, a 1935 alumnus, has established a $10,000 Appalachian Scholarship Endowment for a student majoring in English with journalism as a career option. Preference is to be given to, but not limited to, a student from Lawrence County, Kentucky. Otherwise the grant is open to any student from Appalachia.

Henry C. Black Memorial Scholarship — This scholarship of $250 a semester is given as a memorial to Mr. Henry C. Black, a graduate of Union College, to a freshman graduating from high school in Kentucky or Tennessee.

John A. and Hannah P. Black Memorial Scholarships for Christian Workers — The late Dr. and Mrs. Henry C. Black, of Johnson City, Tennessee, endowed a scholarship that provides an annual grant of $500 a semester for a promising student who plans a life of service in the United Methodist Church.

Dr. and Mrs. James F. Blair Scholarships — Dr. and Mrs. James F. Blair of Barbourville, Kentucky, have endowed two $600 scholarships for students from Knox County, Kentucky. They are awarded annually to students in the sophomore, junior or senior year.

The Thelma Morehead Blair and Robert A. Blair Endowed Scholarship — Their daughter and son-in-law, Jeanette Blair Ladenburger and John L. Ladenburger established a scholarship endowment in memory of Mr. and Mrs. Robert A. Blair. The earnings are to provide scholarships for Southeastern Kentucky students. Both Mr. and Mrs. Blair were graduates of Union College.

The R.L. Brown Family Endowment Scholarship — Mr. R.L. Brown, Jr., a Union College trustee from Corbin, Kentucky, has established an endowed scholarship for needy students. The late Mr. and Mrs. R.L. Brown, Sr. were graduates of Union College.

The Annette and Berry Burnaw Scholarship Endowment — Given by James Burnaw, an alumnus of Union College, in honor of his parents. The yield is designated for a student from Nicholas County, Kentucky. Should there be no qualified student from this area during a given year, the scholarship will be given to some other Kentucky student.

The Eulalia Serrano Cabrero Memorial Scholarship — Miss Carmen Cabrero, '64, Jacksonville, Florida, has established a scholarship in memory of Eulalia Serrano Cabrero, a 1964 graduate of Union College. The $300 scholarship is available to a needy student of a minority background interested in a service profession.

Dr. and Mrs. Carlo B. Cawood Memorial Scholarship — The late Dr. and Mrs. Carlo B.

Cawood of Harlan, Kentucky, endowed a scholarship to be awarded to a Harlan County student, with preference being given to a student from the Harlan United Methodist Church. The scholarship may be renewed. The grant is $800 per year.

Mamie D. Chambers Endowment Fund — The late Mamie D. Chambers of Maysville, Kentucky, established an endowment fund, the income from which is used to help support grants to needy and deserving students.

The Dr. Emerson G. and Edith Cobb Chemistry Endowment Fund — Dr. and Mrs. Emerson G. Cobb of Burson, California, have established an endowment for the support of a scholarship for the College's Chemistry Department. Dr. Cobb, a 1928 graduate of Union College, headed Union's chemistry program and later became head of the Department of Chemistry at the University of the Pacific, Stockton, California. Mrs. Cobb, the former Edith K. Cheap, is a 1929 Union graduate.

The Reverend Howard and Kathryn Coop Scholarship — Established in honor of the Coops by friends in churches where they have served, the Coop Scholarship is designated for Methodist students with preference being given to Kentucky Methodists.

The Davies Memorial Scholarship — The family and friends of Miss Ellen Davies and Dr. T. R. Davies have endowed a $1,600 scholarship to be awarded annually to a freshman or to an upperclassman with a "B" standing from Bell, Clay, Harlan, Knox, Laurel or Whitley County.

The Doan-Woody Scholarship — Oatis Doan of Harlan, Kentucky, has endowed a scholarship that provides an annual grant to a southeastern Kentucky student who has a 3.25 grade-point average. The grant, a memorial to Oatis Doan, Sr., is in honor of Mary H. Doan and Dr. Lester G. Woody, and may be renewed if the student maintains an overall grade-point average of 3.00 or better.

Dr. Robert M. Drew Endowment Fund — The Commission of Missions of the Hyde Park Community United Methodist Church, of Cincinnati, Ohio, has established an endowment fund in honor of the Rev. Dr. Robert E. Drew. This fund will be used for scholarship grants to foreign students.

Dr. Franklin Duncombe Memorial Fund — Mrs. Helen Duncombe of Haverford, Pennsylvania, has established an endowment fund in memory of her late husband. Income will be used to finance grants-in-aid for students planning to enter the United Methodist ministry.

Alfred I. DuPont Scholarship Fund — The late Mrs. Alfred I. DuPont of Wilmington, Delaware, established scholarships for needy students having high academic potential. Preference is given to students from the Appalachian counties of Kentucky and Appalachian regions in adjoining states. This amounts to $5,000 annually.

Sam Coone Early Endowment Scholarship — The family of Sam Coone Early has endowed a scholarship to be awarded annually to a needy student. Mr. Early was a student at Union College in the late 1920's.

E. Nettie Edinger Memorial Scholarship — The late Mr. Joseph Edinger endowed this scholarship in memory of his sister. The scholarship is awarded annually to a deserving and worthy student enrolled at Union College.

Dr. and Mrs. J. Edward Faulkner Memorial Scholarship — This $500 scholarship is awarded to a student who plans a life of service in the healing arts, with preference being given to a predental student.

John D. Feather Scholarships — The late John D. Feather of Corbin, Kentucky, a graduate of Union College in the class of 1940, has endowed scholarships to Union College for students from Corbin High School. The trust fund will provide funds for this scholarship program.

The R.B. Fenley Scholarship — Mr. R.B. Fenley of Louisville, Kentucky, has endowed a scholarship for needy Kentucky youth who show promise of future usefulness. Mr. Fenley is a former trustee of Union College.

The GAR Foundation Endowed Scholarships — The GAR Foundation has endowed scholarships for Appalachian students with priority being given to those from the Fifth Congressional District.

The President E. T. Franklin Endowed Scholarship — Mrs. Grace I. Franklin, widow of former Union College President E. T. Franklin, and the immediate family have established an endowed scholarship, the yield from which will be awarded to a student or students who maintain acceptable grades who are in financial need, and who plan to enter some form of Christian service.

W. Glover Giles Memorial Fund — The late Mr. W. Glover Giles of Louisville, Kentucky,

a trustee of Union College, established an endowment fund by gifts during his lifetime and by a bequest. Income is used to fund Honor Scholarships at Union College.

John O. and Harriet B. Gross Memorial Scholarship — Family and friends have endowed a scholarship. Dr. Gross was president of Union College during the years 1929-1938. The scholarship is awarded annually to a Kentucky senior student with preference being given to one from Northern Kentucky. The stipend and requirements are the same as for "United Methodist Scholarships."

Hugh and Joyce Haggard Memorial Scholarship — A scholarship fund memorializing Dr. Hugh E. and Joyce A. Haggard, and their children, Walter M. and Stephanie L., has been established by the parents and brother of Dr. Hugh E. Haggard. Income from the fund provides an annual scholarship for a full-time student at Union College. The $2,000 scholarship will be awarded to a worthy student on the basis of financial need.

Dewey and Rachel B. Hendrix Memorial Endowment — Dwight M. Hendrix, an alumnus of Union College and his sister, Mrs. Mary Katherine Hendrix Brashear of Hyden, Leslie County, Kentucky, have established an endowment to memorialize their parents. The endowment is designated for financial aid, with the income to assist needy and qualified students enrolled full-time. Students who are residents of Leslie County, Kentucky, are given preference. Should no one qualify, then the grants are to be given to students from the Appalachian Region of Kentucky.

Walter S. and Ida Cole Hudson Scholarship Fund — The late Ida Cole Hudson of Barbourville, an alumna of Union College, endowed, through a bequest, a fund to provide scholarships to students from Knox County, Kentucky.

Irene Hughes Scholarship — Miss Irene Hughes (AB'37; MA '63), Barbourville, Kentucky, provides an annual scholarship of $250 for a freshman girl, a graduate of Knox Central High School, who has been a member of the High School Honors English Class and who exemplifies Christian principles of conduct. The scholarship will be awarded by the Alumni Scholarship Committee.

Dr. W. A. E. Johnson Memorial Scholarship — Mrs. W. A. E. Johnson of Lawrenceburg, Kentucky, and friends have endowed a scholarship in memory of her late husband, a Union graduate and long-time friend of the College. The scholarship is designated for preministerial or Christian-service students.

Professor and Mrs. Millard L. Jordan Scholarship — Professor and Mrs Millard L. Jordan of Lakewood, Ohio, have established a scholarship fund at Union College to aid worthy Appalachian students.

Junior Study Club Scholarship — The Junior Study Club of Barbourville, Kentucky, provides a $200 scholarship to aid worthy students from Knox County, Kentucky. The scholarship is awarded to a girl who graduated from a high school in Knox County and who is a junior or senior at Union College.

Kentucky River Coal Corporation Scholarship — A scholarship endowment has been established by the Kentucky River Coal Corporation, Lexington, Kentucky, for needy students from Knott, Leslie, Letcher, and Perry Counties, Kentucky. Recipients must have a grade point average of at least 2.0 during their senior year in high school, or must have or maintain a grade point average of at least 2.5 at Union College.

Jeffrey W. Kronk Memorial Scholarship — Mr. and Mrs. Walter F. Kronk of Huntsburg, Ohio, have endowed a scholarship for a needy, qualified student from Geuga, Lake, or Astabula Counties in Ohio, or from the Appalachian counties of southeastern Kentucky. The scholarship is in memory of their son, Jeffrey, who was enrolled at Union College from 1963 through 1967. Should there be no qualified student from these areas in any given year, the endowment income will be used to support the Lincoln-Civil War Collection at Union College.

Verna Noe Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, has established a $500 annual scholarship at Union College in memory of his mother, Mrs. Verna Noe Landrum. The award is to go to a student from Harlan County.

W.B. Landrum Memorial Scholarship — Mr. John W. Landrum of Harrodsburg, Kentucky, provides annually a scholarship of $500 in memory of his father for a promising United Methodist ministerial student. The student benefited by this scholarship must exhibit outstanding personal attitudes of religious sincerity, devotion, and earnestness in purpose.

Dorothy Lucas Memorial Fund — An endowment fund has been established in mem-

ry of Miss Dorothy Lucas, registrar of Union ollege for many years and beloved friend of udents. The income from this fund is used support various student-aid activities of the ollege.

The Magee Christian Education Foundation wards annually a scholarship for students en- ring Christian vocations or professions or to ose of economic need who are of Christian ommitment.

Gayle Miles Scholarship — An endowed holarship has been established by friends nd former students of the late Gayle Miles for udents from Barbourville High School. Miss iles taught at both Barbourville Elementary nd Union College.

John and Minnie B. McGaffee Trust Fund - Dr. and Mrs. O.J. Wilson of Louisville, Ken- cky, have established the John and Minnie . McGaffee Trust Fund for the purpose of pro- iding financial assistance to worthy and needy reministerial students. The income may be sed for grants or loans, with preference being iven to students from the Appalachian Region f Kentucky.

Drs. Robert and Gertrude McGuire En- owed Scholarship — Drs. Robert and Ger- ude McGuire, graduates of Union College, ave established an endowed scholarship for Union student having a financial need and aintaining a minimum of a B average. This holarship amounts to $1,100 annually.

National United Methodist Scholarships — he Board of Education of the United Meth- dist Church makes available annually several nited Methodist Scholarships of $500. The wards are made on the basis of character, eed, and scholastic ability. Only students aving at least a "B" average are eligible.

Mr. and Mrs. Hiram H. Owens Memorial cholarship — Mrs. Sampson B. Knuckles ean) and Mrs. Buford T. Clark (Eleanor) have ndowed a scholarship for a Knox County stu- ent in memory of their parents, Mr. and Mrs. liram H. Owens. Mr. Owens was a well- nown lawyer and Mrs. Owens (Georgia Black) as the daughter of James D. Black, a governor f Kentucky and a president of Union College.

The Frances L. Patridge Scholarship — riends have endowed a scholarship in honor f Dr. Frances Patridge, a friend and employee f the college longer than any other faculty ember, with over 40 years of service. Her last ank was Vice President for Student Affairs and Associate Professor of Health and Physical Education. The yield will be placed in the general scholarship fund and designated for upper division students with a 2.5 or better grade point average.

Emory Evan Peter Memorial Endowment — The late Mrs. Laura P. Dickey of Louisville, Kentucky, established an endowment fund in memory of her brother, Emory Evan Peter. The income from this fund will be used to help finance the college student-aid program.

Donald Rankin Memorial Scholarship — Friends of Donald Rankin, a Union College student killed in Vietnam, have provided a scholarship that pays $350 annually to a young man from Kentucky. Basis for awarding the scholarship is need and the earnest desire for a college education.

The Marvin Robbins Endowed Memorial Scholarship — An endowed scholarship has been established in memory of Mr. Marvin Robbins, a graduate of Union College. The applicant must be an upperclassman who is a Bell County High School Graduate. The selection will be based upon academic achievement and financial need.

E.O. Robinson Mountain Fund Scholarship — The E.O. Robinson Mountain Fund has established an annual scholarship program to assist needy students who reside in the Appalachian Region of eastern Kentucky. Students receiving these scholarships should give promise of being able to complete their academic work successfully.

Sanders Honor Scholarship — The late Colonel Harland Sanders of Shelbyville, Kentucky, provided a number of honor scholarships annually. Mrs. Claudia Sanders, his widow, continues to provide them. The Sanders Honor Scholarships are limited to students who do not use tobacco and alcoholic beverages.

Sims Scholarship Fund — Reverend and Mrs. Harry C. Sims of West View, Kentucky, have established a scholarship fund at Union College to aid worthy students preparing for the United Methodist ministry.

The Catherine Faulkner Singer Memorial Scholarship — This $500 scholarship has been established by friends, alumni, and her daughter and son — Marcia and Donald — for the son or daughter of an alumnus of Union College. The honoree was Director of Alumni Affairs from 1961 to 1978.

Cawood Smith Harlan County Scholarship — Dr. Cawood Smith, Harlan County attorney, has established an endowment for scholarships to be awarded to the son or daughter of miners from Harlan County, Kentucky. The recipient shall be a resident of Harlan County and is to be selected upon the basis of need, scholarship, and promise of future usefulness in the coal region. This annual grant shall total $2,400.

Margaret Carter Stacy Scholarship Fund — Margaret Carter (Mrs. Cortis K.) Stacy of West Liberty, Kentucky, has endowed a scholarship fund for the support of students from Morgan County, Kentucky, or for Appalachian students. Mrs. Stacy is a strong United Methodist with interest in higher education for the youth of Appalachia.

Dr. and Mrs. Charles B. Stacy Memorial Scholarship Fund — A scholarship fund has been endowed in memory of Dr. and Mrs. Charles B. Stacy of Pineville, Kentucky, for students from southeastern Kentucky. A longtime friend of Union College, Dr. Stacy had an abiding interest in education of the Appalachian region.

Charles R. Steele Memorial Scholarship Fund — Martha Brittain Steele has established this scholarship as a memorial to her late husband, Charles R. Steele, a 1933 graduate of Union College. Preference is to be given to, but not limited to, a student from Mason County, Lewis County, or Harlan County. Otherwise the grant is open to any student from Appalachia.

The Steele-Reese Foundation Endowed Scholarships — The Steele-Reese Foundation of New York City has established a $100,000.00 endowment with the yield being designed for scholarships for qualified Appalachian students.

The Stevens Family Scholarship Fund — Dr. Erland P. Stevens, a Union College trustee of Ashland, Kentucky, and Mrs. Stevens have established a scholarship fund with 80 percent of the earnings being distributed annually as scholarship grants and with 20 percent of the yield being reinvested in the Stevens Family Scholarship Fund. The scholarships shall be a part of the College's general scholarship fund.

Lewis Ogden Stiles Endowment Fund — The late Mrs. Lewis Ogden Stiles of Waco, Texas, established this fund to memorialize her late husband, Lewis Ogden Stiles, and his first wife Pearl Long Stiles, both faithful United Methodists of Irvington, Kentucky. The come from this fund will be used to finar grants-in-aid under the college loan-grant p gram to United Methodist students planni to enter the ministry of the Kentucky or Lou ville Annual Conference.

The Walter B. and Geraldine G. Sutt Memorial Scholarship — An annual schol ship will be given to a Knox County stud attending Union College. The selection will determined by the student's need, acader ability, and promise of future usefulness. T endowment is provided by two daughte Carla Sutton Combs and Lynn Sutton Pricha

Lytle and Dorothy Swope Scholarship Dr. Samuel G. Swope of Louisville, Kentuc a trustee of Union College, and F. Willi Swope of Elizabethtown, Kentucky, have tablished a scholarship endowment as a me orial to their parents. Funds for t endowment came from their parents' esta Up to four scholarships are awarded annua with grants of $600 each. Preference is giv to students born in Kentucky, Ohio, or Flori

Hulbert Taft, Jr., Memorial Scholarship Mrs. Thomas C. Haydock, Sr., of Cincinn Ohio, has provided a scholarship endowm as a memorial to her late husband, Hulb Taft, Jr. The income from the endowment v be used annually to provide one or more hor scholarships to needy students having high ademic potential.

The Dot Tatman Endowed Scholarships Four $250 endowed scholarships have been tablished by the Reverend Dr. Harold W. T man, Jr., in honor of his wife, Dot. T scholarships are to be given to freshmen a continue over the four-year period with pr erence to Kentucky female students.

The Teagle Foundation Appalachian Sch arships — The Teagle Foundation of New Yo City has established a number of scholarsh for qualified Appalachian students. The fou dation was established by Walter Clark Teag Rowena Lee Teagle, and Walter C. Teagle,

Edward Townsend Memorial Scholarsh — Dr. Milton H. Townsend has endowed scholarship with preference being given to history and political science major. The gra is in memory of Dr. Townsend's late father

TREMCO, Inc., Scholarship — Scholarsh amounting to $4,000 annually are awarded TREMCO, INC., a division of B.F. Goodr Company, to science or chemistry stude

with preference being given to students from southeastern Kentucky.

Allan Tuggle Scholarships — Allan Tuggle, M.D., of Charlotte, North Carolina, an alumnus of Union College, has established a number of scholarships in mathematics and physics.

Several of the scholarships are awarded to entering freshmen on the basis of competitive examination. Other scholarships are awarded to current students with majors or minors in mathematics or physics on the basis of academic achievement. Some of the scholarships may be in the form of work grants.

Union National Bank Scholarship — The Union National Bank of Barbourville, Kentucky, has established a half-tuition scholarship at Union College to aid worthy students from Knox County, Kentucky. It is awarded to a student graduating from a high school in Knox County, for the freshman year at Union College.

Vaughn and Melton Company Scholarship — This scholarship is given by Vaughn and Melton, Consulting Engineers of Middlesboro, Kentucky. An annual award of $500 for a student from southeast Kentucky whose high school and college scholastic record reflects the potential for making a major contribution to the quality of life of the region.

Harry C. Viall Memorial Scholarship — Mrs. Harry C. Viall of Barbourville, Kentucky, has endowed a memorial scholarship for a needy, qualified student with preference going to an individual from Knox County. The annual $1,300 scholarship is given in memory of her late husband, Harry, who was a prominent local businessman.

Mr. and Mrs. O. H. Viall Memorial Scholarships — The family of Mr. and Mrs. O. H. Viall of Barbourville, Kentucky, has established a memorial scholarship fund at Union to aid worthy students. The number and size of the scholarships vary according to student financial need.

The Robert E. and Ann Viall Endowed Scholarships — Mr. and Mrs. Robert E. Viall of Barbourville, Kentucky, have established endowed scholarships that provide $6,000 annually for worthy students from either Knox or Bell County.

The Ethel White Memorial Endowed Music Scholarship — This scholarship, given by family and friends, has been designated as a music scholarship for students from Kentucky. If no Kentucky students are eligible, the scholarship may be awarded to any student or students majoring in music. Mrs. White was a former member of the music faculty at Union College. Dr. White, her late husband, was a graduate of Union College.

William M. Wilson Memorial Scholarship — The late Mrs. Eva Oldfield Wilson of Barbourville, Kentucky, established a scholarship fund in memory of her late husband. The income from the fund will be used to provide an annual grant of $350 for a promising student preparing to teach in the elementary or secondary schools.

The Dr. C.R. Wimmer Endowed Chemistry Scholarship Fund — This scholarship, established by Mrs. C.R. Wimmer and friends, is to be awarded to a chemistry student at Union College or to one seeking admission as a chemistry student. Dr. Wimmer was professor of chemistry, head of the Chemistry Department, and director of the Department of Physical Sciences from 1932 to 1946. He was academic dean at the College from 1934 to 1946.

Dr. Henry M. Zimmerman Scholarship — The late Dr. Henry M. Zimmerman of Pompano Beach, Florida, established a scholarship endowment for needy students of exemplary character who show promise of being able to contribute to the well-being of their country and their fellow man.

Endowments

The Russell M. Bennett Memorial Professor of Sociology Chair — Mrs. Helen Hunt Bennett gave $75,000 to Union in 1946 for the endowment of this professorship. An additional $2,000 was given for equipment for the Business Department.

Andrew and Emma Elizabeth Edinger Memorial Fund — This fund was established by the late Mr. Joseph Edinger in memory of his mother and father. The fund has been increased by other members of the family and the income designated for use in the maintenance of campus buildings.

James P. Faulkner Memorial Endowment — James P. Faulkner of Barbourville, Union College president from 1897 to 1905, gave property to the college, the sale of which produced $57,500. The income from this investment is used for salary support for a faculty member in philosophy.

The Harry L. Frey Scholarship Fund — Harry L. Frey, formerly of Lexington, Kentucky, and a member of the First United Methodist Church of that city, has established an endowment for scholarships for Union College students.

The Raymond W. Gibson, Sr., Chapel Endowment — Mr. Raymond W. "Deacon" Gibson, Senior, of Danville, Kentucky, established a $50,000 endowment at Union College in 1979 for the upkeep and maintenance of the Conway Boatman Chapel. His son, Raymond W. Gibson, Jr., served as Campus Minister at Union College from 1974 to 1979. The late Mr. Gibson, a prominent layman in the Kentucky Conference of the United Methodist Church, was a long-time friend of Union College.

Dr. Frank A. and Mrs. Eleanor Gilbert Biology Faculty Endowment — The late Dr. and Mrs. Frank A. Gilbert established a Biology Department Endowment to augment the salaries of the biology faculty. The annual supplement will be in addition to regular salaries. Dr. Gilbert was professor emeritus of biology at Union College.

The Charles M. and Mary D. Grant Faculty Endowment — The Charles M. and Mary D. Grant Foundation of New York City has provided an endowment for faculty development at Union College. The yield from this fund will support increased faculty salaries and professional advancement for the faculty members. The endowment was established in 1989.

The Margaret Voorhies Haggin Trust of New York City has contributed to the Union College Endowment Fund. The yield from this fund will support increased faculty salaries and professional advancement for the faculty members. The endowment was established in 1989. The trust contribution is in memory of the late James B. Haggin of Lexington, Kentucky.

Anna E. and John William Harris Memorial Fund — The late Dr. J. William Harris established a lectureship fund containing the sum of $30,000 in memory of his sister, Anna E. Harris, and his father, John William Harris.

The William Randolph Hearst Foundation of New York City has established an endowment for faculty development at Union College. The yield from this fund will be used to support increased faculty salaries and professional advancement for the faculty members. The endowment was established in 1987.

The Ray C. Hensley Business Simulatio Center Endowment — This has been estal lished by Cavalier Construction, Inc., Springfield, Ohio, as a memorial to Ray Hensley, the father of Pamela K. Hensley, a alumna and faculty member at Union Colleg This was established in 1990.

The Kenneth G. Herrick Faculty Endow ment — Kenneth G. Herrick of Tecumsel Michigan, has established a Faculty Develop ment Endowment at Union College. The yiel from this fund will support increased facult salaries and professional advancement for th faculty. This endowment was established i 1986.

The Professor Daniel M. Humfleet Scho arship Endowment — Mrs. Bernice Humflee Aguilera of Natchitoches, Louisiana, has es tablished a $25,000 endowment at Union Co lege in memory of her father, Professor Danie M. Humfleet, a former faculty member of th College. The yield from this fund will go fo the support of a scholarship for a Knox Count student who plans to enter the teaching profes sion. The scholarship will begin following th lifetime of Mrs. Aguilera.

Charles and Leona Jennings Memoria Funds — Dr. Charles M. Jennings of Marietta Georgia, has established an endowment fun in memory of his parents, Charles and Leon Jennings, the income from which is to be use to provide an annual bonus to the head of th Department of Biology at Union College.

William Jones Endowment Fund — The lat Mr. William Jones of Barbourville, Kentucky established a fund, the income from which i designated for use by the music department t purchase recordings and musical scores.

Jeffrey Kronk Memorial Endowment — Thi endowment, established by the Senior Class o 1967, in memory of Jeffrey Kronk, a membe of that class, will assist in purchasing books fo Union College's Lincoln-Civil War Collection

Francis Landrum Memorial Professor of Re ligion and Philosophy — The late Mrs. Obe J. Wilson established the Francis Landrun memorial professorship through a bequest o $50,000 in 1927.

Melanie Jean Martin Trust Fund — Dr. an Mrs. O. J. Wilson, of Bowling Green, Ken tucky, have established a memorial fund i memory of their granddaughter. The incom from this fund is used to purchase library book to support the work of the English department

Pearl Sinnett Meyer Memorial Fund — The ev. Dr. Jesse I. Meyer has established an en- owment fund in memory of his wife, Mrs. earl Sinnett Meyer. The income of this fund designed for the purchase of books for the nion College library.

Allan Tuggle Endowment Fund — Allan ggle, M.D., of Charlotte, North Carolina, an umnus of Union College, has established a nd, which may be augmented from time to ne, the income from which is designated for holarships, awards, and instructional sup- rt in mathematics and physics.

Willson-Gross Lectures — The late Dr. and rs. James Wilson of Floydada, Texas, estab- hed a lectureship endowment in memory of . and Mrs. John Owen Gross. The purpose the lectures is to bring annually to the cam- s distinguished speakers to discuss vital is- es confronting the Christian student.

Colutha J. Taylor Wright Memorial Fund — ie late Mr. J. S. Wright of Whitley City, Ken- cky, established an endowment fund in emory of his wife, Mrs. Colutha J. Taylor right. The initial sum was $1,000.

wards

ote: These awards may be presented at the nual Honors Day Convocation. Some are ac- emic in nature; to be eligible for such awards, udents' academic records should not include y grades of "incomplete." Postgraduate stu- nts are ineligible to receive these awards.

Alpha Psi Omega Award — given by the ta Chi chapter of the national dramatics hon- ary fraternity to a senior who has made out- anding contributions to Union College eatre over a period of years.

Bjornstad Freshman Composition Award — ven by Dr. William Bjornstad, a former fac- ty member of Union College, and Mrs. Bjorn- ad, to the student achieving the highest iting excellence in freshman composition urses as determined by the English Depart- ent.

Governor James D. Black Senior Award — ven by the late Mr. Pitzer D. Black of Bar- urville to the senior student with the highest holastic average for the year.

Blackwell Political Science Memorial ward — given by the late Dr. Robert Lee ackwell to the senior majoring in history and/ or political science showing the highest academic excellence in the field of political science.

Erwin S. Bradley History Award — given to an upperclass student with a major in history who has the highest scholastic average in overall grades in history earned at Union College.

Melva and Kathy Brick Award — given by Mr. Theodore F. Brick, family and friends to the student showing the highest proficiency in competitive swimming.

Calculus Award — given by a friend of the College to the student with the highest cumulative average in all three calculus courses offered at Union.

Campus Activities Board Award — given by the Campus Activities Board to the senior member who has contributed the most to the Board and to student activities at Union College during the academic year.

Campus Ministry Award — given to the senior who, by his or her actions, exemplifies selflessness and concern for the needs and well-being of others as determined by the office of Campus Ministry.

Chemical Rubber Company Freshman Chemistry Award — given by the Chemical Rubber Company Press of Boca Raton, Florida, to the outstanding freshman chemistry major.

Dr. Theodore R. Davies Senior Biology Award — given in memory of the late Dr. Theodore R. Davies to the senior student showing the highest academic excellence in the field of biology.

Eastern Kentucky Essay Award — given by the late Dr. Kenneth H. Tuggle, a trustee of Union College, to the student writing the best essay on eastern Kentucky history.

Engineering Award — given by a friend of the College to the student with the highest cumulative average in pre-engineering courses taught at Union College.

Evans Phillips & Company Scholarship Award — given by Evans Phillips & Company, C.P.A.'s of Barbourville — an annual $500 scholarship to be awarded to the most promising freshman or sophomore accounting major. The scholarship is to be used in the fall semester. The recipient also receives a plaque and a cash award.

Gamma Beta Phi Award — given by Gamma Beta Phi to the full time student with the highest cumulative average in hours earned at Union College.

Dr. L.A. Geiss Computer Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a former Union College trustee, to the student exemplifying excellence in computer information systems.

Dr. L.A. Geiss Junior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a former Union College trustee, to the junior majoring in accounting with the highest cumulative standing in that field.

Dr. L.A. Geiss Senior Award — given by Mrs. L.A. Geiss and the late Dr. Geiss, a former Union College trustee, to the graduating senior majoring in business with the highest cumulative standing in the field.

Dr. Albert D. Graham, Jr., Social Studies Award — given by Dr. Albert D. Graham, Jr., to the senior education major who shows the greatest teaching potential in Social Studies.

Joe C. Hacker Award — given by a friend of Union College in honor of Mr. Joe C. Hacker who was a member of the Union College faculty for over thirty years. This award is given to the student showing interest and excellence in a first computer programming course.

Health and Physical Education Faculty Award — given by the Union College Health and Physical Education Department to the senior Health or Physical Education major with the highest cumulative academic standing.

Iota Sigma Nu Freshman Award — given by the Iota Sigma Nu Honor Society to the freshman with the highest scholastic average for the year.

Iota Sigma Nu Sophomore Award — given by the Iota Sigma Nu Honor Society to the sophomore with the highest scholastic average for the year.

H.B. Jones Business Enterprise Award — given in memory of Mr. H.B. Jones to the student who has shown initiative and enterprise in the field of business.

Steve Jones Memorial Award — given in memory of Steve Jones, a Union College graduate, to the Senior Varsity Letterperson with the highest cumulative academic average.

The Journalism Award — given by the English and Foreign Languages Department of Union College to the English major with journalism emphasis who has done the most to promote high journalism standards at Union College and who shows the greatest promise for success in a professional journalistic career.

The Literature Award — given by the Tu
day Club of Barbourville to the student ma
ing in English who shows the grea
excellence in the field of literature.

Marigold German Award — given by
W. Gordon Marigold in memory of his mot
Mrs. W. J. Marigold, of Toronto, Canada,
excellence in the field of German.

Marigold Microcomputer Lab Award
given in honor of Mrs. Connie Marig
whose assistance and enthusiasm have gre
contributed to the development of the mi
computer laboratory. This award is given to
microcomputer laboratory assistant who
best demonstrated excellence through ser
to students and faculty in the microcomp
laboratory.

Mathematics Award — given by a frien
the College to the graduating senior math
jor who has the highest cumulative averag
math courses at Union College.

Military Order of World Wars Award
given by the Louisville Chapter of the Mili
Order of World Wars to the Military Scien
or II student for outstanding leadership
academic excellence.

Dr. Mahlon A. Miller President Emer
Award — given by Dr. and Mrs. Mahlon
Miller to the senior with the highest cumula
average earned at Union College.

Rena Milliken Award — given in hono
Miss Rena Milliken, Professor Emeritu
Business at Union College, by the Union
lege Business Department to the gradua
senior who shows the greatest potential
professional achievement.

Dr. Paul Muncy Memorial Award — gi
in memory of Dr. Paul Muncy to the se
pre-medical student with the highest cum
tive academic standing.

Music Faculty Award — given by the Un
College Department of Music and Fine Art
a music major for his or her interest, initiat
cooperation, musical ability, academics
service to the department.

National Education Association — Stud
Program Award — given by the Union Coll
Chapter of the National Education Associa
— Student Program to the graduating se
showing the greatest excellence in the fiel
education.

H.H. Owens History Award — given by
late Mrs. H.H. Owens to the student show
the greatest excellence in the field of histo

Laws and Esten Parks Award — given by . S. Laws Parks, former Vice President for siness Affairs at Union College, and Mrs. rks, to the senior religion major with the ghest cumulative academic standing.

Patridge Theta Pi Delta Awards — given by e "Union Express" and **Stespean** staffs in nor of Dr. Frances Patridge, former Vice esident for Student Affairs at Union College, seniors who represent the qualities of outnding service exhibited by Dr. Patridge.

Phoenix Award — given by the Drama facy to the freshman who stands as the hope the future by contributing the most to Union llege Theatre in the academic year.

Physics Award — given by a friend of the llege to the student showing the greatest cellence in the general physics course taught Union College.

Reserve Officers Association Award — ven by the Kentucky Department of the Reve Officers Association to the Military Sci- ce III student for possessing potential dership qualities and achievements.

William Faulkner Rushton Award for Appalachian Literature — given in memory of illiam Faulkner Rushton. This award has en established by parents and friends in nor of Mrs. Lura Faulkner Rose, the late Mr. shton's grandmother. Awards will be given a Union College student and a student from Knox County high school. Winning papers ll be selected by a committee of judges from tries submitted by classroom teachers.

Sampson Political Science Award — given the late Governor Flem D. Sampson to the nior showing the highest academic excelnce in the field of political science.

William Hugh Smith Memorial Award — ven in memory of the Reverend William ugh Smith to a pre-ministerial or Christianrvice student (with preference being given to Christian-service student) who shows promin the ministry.

Outstanding Senior Sociology Major Award given by the Social Science Division faculty the senior sociology major with the highest mulative grade point average.

Hattie Stanberry Ecology Award — given in emory of Hattie Stanberry, an alumna and rmer faculty member, to the student or ornization that has made a contribution to enronmental improvement in the academic year. If there is no qualified candidate, the $50 stipend shall go to the College's Soccer Club, or, if there is none, it shall go to the Annual Fund.

Student Activities Appropriations Committee Student Organization Achievement Award — given by the Student Activities Appropriations Committee to the campus organization which, in the committee's opinion, has contributed the most toward campus activities during the academic year.

Student Government Association Award — given to the newly elected Student Government Association President.

Student Government Association Certificate of Service Award — given by the Union College Student Government Association to a member of the Union College staff for his or her contributions to the Student Government Association during the past year.

Student Government Association Distinguished Professor Award — given by the Union College Student Government Association to a member of the Union College faculty.

Student Government Association Secretary of the Year Award — given by the Union College Student Government Association to a secretary employed by Union College. The recipient is selected by the secretaries on campus.

Katherine V. Sutphen Memorial Award — given in memory of Katherine V. Sutphen, a former faculty member of Union College, to the student who has used his or her talents best during the year in serving the Union College Music Department.

Judge W.W. Tinsley Family Memorial Award — given by the late Mrs. Mayo Tinsley Rathfon to the junior or senior preparing for a legal career showing the greatest promise of future success.

Tremco, Inc. Award — given by Tremco, Inc. of Barbourville to the junior majoring in chemistry showing the highest academic excellence as determined by the science faculty.

Beverly P. and Mossie B. Wilson Memorial Award — given by Dr. and Mrs. O.J. Wilson in memory of Dr. Wilson's parents to the English major with the highest cumulative grade point average who has completed three full years of residence at Union College.

Dr. Cecil H. Wilson Junior Award — given by Dr. Cecil H. Wilson, an alumnus and trustee

of Union College, to the junior with the highest scholastic average for the year.

John Henry Wilson Sophomore Award — given by Mrs. Guy D. Atkisson, Jr., of St. Petersburg, Florida, the granddaughter of the late John Henry Wilson of Barbourville, to the sophomore from the Fifth Congressional District of Kentucky who has the highest scholastic average for the year.

Wimmer Chemistry Award — given annually to the student showing the greatest promise in the field of chemistry. Dr. C. R Wimmer was head of the Chemistry Depart ment at Union College from 1932 to 1946. H also served as academic dean during this time

Work Study Merit Awards — given by th Union College Financial Aid Office to student who are nominated by their supervisor. The should have worked in the same office at leas three consecutive semesters, be making prog ress toward completing their present awar and have a clear account.

THE ACADEMIC PROGRAM

Academic Calendar

Union College operates on a semester system. The Fall semester begins in late August and ends before Christmas. The Spring semester runs from January to early May. The college has a special three-week May interim session as well as two five-week summer terms.

Course Load

The normal undergraduate student load is sixteen semester hours per semester. Students who have an average academic standing may register for a maximum of eighteen semester hours credit per semester. Students who attain a "B" average are permitted to earn up to twenty-one semester hours per semester. Exceptions must be approved by the Vice President for Academic Affairs.

The maximum load in the May interim is three semester hours. The maximum load in each summer term is six semester hours. Students whose cumulative grade point average is "B" or better may request permission from the Vice President for Academic Affairs to take seven hours during each regular summer term.

Class Attendance

1. Class attendance is required. Each student is responsible for all work from the first day of class and is expected to attend all meetings of the class for which he is registered. This is regarded as a matter of individual student responsibility.
2. All faculty members are expected to keep accurate records of class attendance.
3. Class absences due to circumstances beyond the control of the student will be excused by the teacher involved if the request is made within one week of return to campus. Class work or tests in these classes must be made up.
4. Class work and tests missed due to illness of a student can be made up only when the student presents the teacher with a valid excuse when he returns to class.
5. Class work and tests missed by the student while he is participating in an activity sponsored by Union College may be made up only when the faculty sponsor of such an activity signs the official absence list of students.

Withdrawal From Courses

A student is not automatically withdrawn when he stops attending a class. Official withdrawals are made only on forms provided by the Registrar's Office. It is the student's responsibility to complete this form, obtain the signatures needed, and return it to the Registrar's Office. Failure on the part of a student to follow this withdrawal procedure will result in a grade of "F" for the term.

Course Numbering System

Courses numbered 100 or 200 are intended primarily for lower division students and 300- and 400-level courses are generally reserved for upperclassmen. Freshmen or Sophomores desiring to enter 300- or 400-level courses should confer with the division chairperson involved for permission to enroll. 500-level courses are restricted to graduate students.

Courses with hyphenated numbers (101-102) are used when the first semester is prerequisite to the second.

Reserved Course Numbers

Some Special numbers are reserved for specific types of courses or studies. They may be used in any department although they are not shown in the following pages under the specific listings.

001-099	Non-credit special interest courses.
181, 281, 381, 481, 581	"Special Topics" courses — classes developed on a one-time or experimental basis, or a special innovative class.
282, 482, 582	Special workshops, credit or non-credit.
183, 283, 483, 583	Television courses through Kentucky Education Television Network.
184, 284, 384, 484	May interim courses not listed under a regular catalog number.
285, 485	Experiential Education — Study abroad, internships, cooperative work, experience and vocational work experience.

287, 487 Field Practicum in specialized areas.

495, 595 Independent Study — individual research on approved topics not found in traditional courses. May be repeated on different topics.

Special Notations

Each course description indicates the semester the course will be offered — (F) for Fall Semester, (S) for Spring Semester, and (Sum) for Summer Session.

Many regular year courses are offered in summer sessions but are not guaranteed offerings.

Courses indicated as being offered in "Even Years Only" are offered on an alternate year basis in academic years *beginning* with even numbers, such as 1978-79 "Odd Years Only" courses are offered on an alternate year basis in academic years *beginning* with odd numbers, such as 1979-80.

Students should consult regularly with their advisors to ensure proper progress toward their degree. In the beginning of the second semester of their junior year, a curriculum plan will be done by the Registrar. This will indicate the courses the student has already completed toward the degree major on file in the Registrar's Office. **Each student is responsible for completing all requirements.**

The Grading System and Quality Points

Marks are reported in letters as follows:

A — Represents distinctly superior work, valued at four quality points for each semester hour.

B — Represents above average work, valued at three quality points for each semester hour.

C — Represents average work, valued at two quality points for each semester hour.

Cr — Indicates that a course has been passed satisfactorily.

D — Represents inferior but passing work, valued at one quality point.

F — Indicates failure with 0 credits and 0 quality points for each semester hour or failure to officially withdraw from a course.

W — Indicates that a student withdrew during the first 12 weeks of the semester.

I — Indicates that in the opinion of the instructor the student has not been able to complete the required work of the course on time due to unavoidable circumstances.

NP — Indicates No Grade Posted — For Developmental Studies courses only.

An "I" received at the end of any semester must be removed before the end of the next semester if the student is enrolled for that term. If the student is not enrolled, the "I" must be removed before the end of the 12 month period following the date on which the "I" was received. Any exceptions to the time limit must be made by agreement of the instructor, division chairperson, and Registrar. If an "I" is not removed within that time limit, it remains on the permanent record and cannot be made up.

Quality Point Standing

The quality point standing of a student is determined by dividing the total quality points which he has earned by the total number of semester hours for which he has registered minus the number of hours of Credit and Incomplete on his record.

Classification of Students

Freshman	less than 32 semester hours
Sophomore	32 semester hours
Junior	64 semester hours
Senior	96 semester hours

Credit/Fail Option

The purpose of the Credit/Fail option is to provide the opportunity for students to explore elective courses outside their area, major, or minor without engaging in competition with students specializing in those subjects and without jeopardizing their grade point average.

This option excludes all courses in the Liberal Education Core and any area, major, or minor. It is available only to those students with at least sophomore classification and those maintaining a 2.0 grade point average. This option is also available to transfer students of sophomore classification and who have completed at least twelve hours of satisfactory work at Union College.

This option allows that no more than fifteen semester hours may be applied toward grad-

uation with a Bachelor's degree, no more than two courses per academic year (July through June), and only two courses in any single discipline. No more than nine hours may be applied toward graduation with an Associate degree.

A student must apply in the Registrar's Office for the Credit/Fail option by the last date identified in the current academic calendar to withdraw from a course with a grade of "W". It is a matter between the Office of the Registrar and the student. The information is not available to instructors except when the student communicates the same to the instructor. A grade of "D" or above will be recorded as CR and an "F" will be recorded as such.

Examinations and Reports of Marks

Examinations are held at the close of each semester. Tests are held at such times during each semester as the instructors may determine. Mid-semester and semester grades are reported by the instructors to the Registrar. Mid-semester grades are mailed to students' advisors as soon as possible, and students are urged to obtain these grades from their advisors. Where permission to mail grades to parents has been given, grades of students receiving a grade of "D" or "F" at mid-semester will be mailed to home addresses after classes resume following the mid-semester break. Copies of final semester grades are mailed to the address designated by the student. Only final grades become a part of a student's permanent record.

Grade Appeal

Students are entitled to redress any grievances relative to grades. Please refer to the student handbook or contact the Office of Academic Affairs.

Honor Students

Union College recognizes excellent scholarship in three ways: The Dean's List, the Presidential Laureates, and graduation with honors.

The Dean's List is comprised of those students who have completed at least 12 hours of graded work with a 3.25 grade point average and no grades of "I" for the semester. This list is published after the fall and spring semesters.

Presidential Laureates are those students who meet all requirements for the Dean's List and achieve at least a 3.75 grade point average for two successive semesters with at least 12 hours of graded work and no grades of "I" in each semester. The two summer sessions may be counted as one of these semesters if the minimum hours have been earned. The list of students designated as Presidential Laureates is published after the fall and spring semester.

Appropriate certificates are given in recognition of both of these achievements, and graduation honors are noted on the diplomas of those receiving degrees with distinction (described on page 36 of this catalog).

Probation

Students falling below the following grade point average and corresponding minimum semester hours will be placed on Academic Probation:

Freshmen	1.80
Sophomores (32 hours)	1.90
Juniors (64 hours)	2.00
Seniors (96 hours)	2.00

Probationary students are closely monitored by the Academic Standing Committee of the College. Students who are on academic probation may be restricted as to course taken, may be required to repeat courses in which low grades have been earned, lose Union College financial aid, or be suspended from the College.

Academic Amnesty

Students having received a grade point average (GPA) of less than 2.0 in a semester may apply once only to the Registrar for academic amnesty after having completed two consecutive semesters of 12 hours with a minimum GPA of 2.0. Twelve semester hours earned during the summer terms may be counted as one semester. Course titles and grades remain as previously recorded on the academic record. Credit will be given for courses with grades of "C" or higher. None of the grades in the semester for which academic amnesty is granted will be used in calculating the GPA. Transfer students bringing less than a 2.0 GPA or having received any form of academic amnesty at another institution do not quality for any amnesty option at Union. Students who receive amnesty will not be eligible for academic honors based on cumulative GPA.

Students who have been out of school for two years or less may be readmitted on a conditional basis and apply for academic amnesty after completing two consecutive semesters of satisfactory (2.0) work. Students who have been out of school more than two years will be treated as transfer students.

Academic Honesty

Union College has a right to expect a high standard of academic integrity. Academic dishonesty such as plagiarism, collaboration, or cheating will not be tolerated. Examples of academic dishonesty may include:

1. Plagiarism - taking ideas, writings, etc., from another and presenting them as one's own.
2. Writing papers for other students.
3. Cheating (using illegal notes, copying, etc.) on examinations.
4. Unauthorized collaboration - unauthorized assistance with written or oral material.

Incidents of academic dishonesty will be dealt with by the individual professor, who may consult with the Department Head, Division Chair, or Vice President for Academic Affairs. Incidents of academic dishonesty will be reported in writing to the Office of Academic Affairs. Students have a right of appeal and are referred to the publication, **Union and You**, under the section "Academic Due Process".

The Instructor may impose one of the following penalties:

1. Administer another examination or outside assignment.
2. Assign a grade of "F" for the examination or outside assignment.
3. Assign a grade of "F" for the course, expelling the student from the course.

In severe or repeated incidences of academic dishonesty, the Vice President for Academic Affairs may suspend or expel a student from the college, after appropriate consultation.

Portfolio Development Program

The Portfolio Development Program is a program designed to accommodate non-traditional students who have not been to college before or who dropped out of college in previous years and would like to return. It is structured to make it possible for these students to earn academic credit for prior learning that has come from life/work experiences. Students must register for the initial course, Portfolio Development, in order to learn how to develop a portfolio document. For further information, contact the Director of Portfolio Development or the Office of Admissions.

College-Level Examination Program (CLEP)

Union College is a regional testing center for the College-Level Examination Program (CLEP). The CLEP tests provide college credit for material students have mastered through self-study or non-accredited classes. As an Open Testing Center, Union College administers CLEP exams the second week of August, October, February and April. Students must register and pay at least three weeks in advance allowing the Testing Center time to order and receive the tests. The fee for the test is nonrefundable in the event the student decides not to take the exam.

By passing the CLEP examinations, degree-seeking students enrolled at Union College can earn up to 30 semester hours of credit toward a four-year program; 15 hours may be earned toward a two-year program. High school special students, and other special students, are not eligible. Credit may not be earned, through CLEP, for courses required for teacher certification by the Kentucky Department of Education. CLEP should not be utilized to make up a failed course.

Exams in the general battery must be taken before the student achieves sophomore status. Further information is available in the Office of Special Programs.

Credit By Examination

1. The student will apply for credit by examination at the appropriate Division Chairperson's office. An initial screening interview will be conducted and the division chairperson and appropriate faculty member will be consulted to determine if an evaluation seems feasible.
2. If an evaluation is feasible, the student will take a completed application form to the faculty member and arrange for an evaluation date. The faculty member will prepare an evaluation procedure, carry out the evaluation, and report the results to the appropriate Division Chairperson.

3. Reported results will include a recommendation as to whether or not credit should be awarded and a description of the evaluation procedure and student performance. This material will be maintained on file in the Instructor's Office.
4. The recommendation and evaluation description will be forwarded to the division chairperson or a designated representative for review. If the division representative does not concur, the faculty member, designated representative (if there is one), and the division chairperson will meet with the Vice President for Academic Affairs to seek a resolution.
5. Successful completion of a challenge examination will be reported to the Registrar by the Instructor and will be recorded as "Credit" on the transcript. An unsuccessful challenge will not be recorded.
6. Students enrolled in a course may request a challenge examination only within the period when a new course may be added.
7. Challenge examinations may not be used for developmental courses, to repeat a course, or remove an "F" from the transcript.

Independent Study and Experiential Education

Union offers to qualified students the opportunity to work independently to earn credit for graduation. This option is reserved primarily for Junior and Senior students who have indicated the academic maturity to be able to accomplish the requirements of the course.

Registration for either of these options is during the designated time period for registration of other courses. Deadlines for adding courses should be adhered to for Independent Study and Experiential Education. Forms can be obtained from the Registrar's Office, Division Chairperson's Office, or the Vice President for Academic Affairs' Office.

Correspondence Courses

Any student planning to graduate from Union College must receive permission from the Registrar to register for correspondence courses. Credits cannot be recorded unless prior arrangements are made.

Students applying for permission to earn correspondence credit must follow the same guidelines as stated for full-time students under "Course Load" on page 30. The stated number of hours will apply only for the semester or term in which the student registered.

Not more than six semester hours of correspondence work done in one academic year will be accepted by the College. Not more than six credit hours in a major may be completed by correspondence. Not more than sixteen semester hours of correspondence credit will be accepted toward a degree. Not more than six semester hours of correspondence may be accepted during the senior year.

Failure or quality point deficiencies in any course done in residence cannot be removed by transfer credit, correspondence or Independent Study. Graduating seniors must complete any correspondence work needed for graduation at least four weeks before the date of Commencement.

Transfer Credit for Union College Students

A student at Union College who wishes to take course work at another accredited college or university must obtain written permission from the Registrar **before** enrolling in the course. Union College students can not register for more than a total of seventeen semester hours per term, including all off campus courses, without the consent of the Vice President for Academic Affairs. Failure or quality point deficiencies in any course work done at Union College can not be removed by transfer credit, correspondence or Independent Study.

Students who have earned a minimum of sixty-two semester hours credit at Union College may transfer a maximum of six semester hours to Union during their final twenty-four hours of baccalaureate degree work. Students who have earned fewer than sixty semester hours credit at Union College may transfer a maximum of six semester hours to Union during their final thirty-six hours of baccalaureate work.

Associate degree students who have earned a minimum of thirty-two semester hours credit at Union College may transfer a maximum of six semester hours to Union during their final eighteen semester hours.

Assessment Day Activities

Union College has developed a plan of action elated to on-going assessment of our academic rograms as well as other aspects of our college ommunity. This is a continuous program roughout the school year but much of the ata collection will center around an Assess- ent Day, identified in the school calendar, here students are expected to participate. nce an on-going evaluation of college pro- rams is important to the quality of our offer- gs and because the Southern Association of olleges and Schools requires some type of as- essment program, this Assessment Day par- cipation has been made a part of graduation equirements. Questions related to this pro- ram should be directed to the Director of Plan- ng and Evaluation or the Vice President for cademic Affairs.

Convocations

There are three convocations held at Union ch year, Fall Convocation, Spring Convoca- on, and Honors Convocation. Attendance is quired for all full time students for the Fall nd Spring Convocations. If a student misses ne or both they must state in writing the rea- on for missing to the Office of Academic Af- irs. Alternate forms of make-up are available the students and these are indicated in cor- spondence each semester. Failure to comply ill result in a letter of non-compliance being laced in the students folder.

Graduation Requirements

Requirements for Graduation — Bachelor egrees — Arts, Music, and Science.

The candidates must satisfy the following re- uirements:

1. Minimum of 128 semester hours. Thirty of the last thirty-six must be earned in residence at Union College. Students who have earned as many as sixty-one semester hours at Union College may graduate with only eighteen of the last twenty-four hours earned in residence. At least forty-two semester hours must be in courses numbered 300 or above.
2. Quality point standing of 2.00 overall and at Union, and in all courses taken in the major or minor fields unless a specific department requires a higher GPA.
3. Completion of the Liberal Education Core.
4. The equivalent of 12 semester hours of a single foreign language not native to the student is required for the Bachelor of Arts Degree. Equivalency shall be determined by the successful completion of the fourth college course of the language. Students with prior training in that language at the high-school level may be eligible for advanced placement in the sequence of courses and meet the requirement with fewer than twelve credit hours.

   Religion majors may substitute a year of Hebrew and a year of Greek for the language requirement for the Bachelor of Arts degree.
5. For the Bachelor of Science degree the student must meet all graduation requirements, including a major or area. A foreign language may or may not be required as determined by the individual discipline.
6. Completion of either:
   a. A major as determined by the faculty of the individual discipline.

      Majors are offered in: Accounting, Biology, Business Administration, Business Education, Chemistry, Christian Education, Church Music, Computer Information Systems, Drama and Speech, Early Elementary Education, English, English with Journalism Emphasis, History, History and Political Science, Mathematics, Middle Grades Education, Music, Music and Business, Music Education, Office Administration, Philosophy/Religion, Physical Education, Physics, Psychology, Religion, Science Education, Secondary Education and Sociology.

      Minors are offered in: Accounting, Appalachian Studies, Biology, Business Administration, Chemistry, Computer Information Systems, Computer Science, Drama, Drama and Speech, Economics, English, Environmental Studies, Health Education, History, Marketing, Mathematics, Music, Office Administration, Philosophy, Physics, Political Science, Psychology, Religion and Sociology.

   b. An area, the structure of which is determined by the faculty of the Division

in which the area requirements are met.

Areas are offered in: English, Mathematics-Physical Science, Science and Social Studies.

7. At least forty-two semester hours offered for graduation must be earned in junior and senior courses (300 or above); at least six semester hours 300 and above, earned at Union, must be included in any twenty-four hour major; at least twelve semester hours 300 and above (evenly distributed in the two fields if this is a combined major), earned at Union, must be included in a thirty-hour major; at least eighteen semester hours 300 and above earned at Union must be included in an area.
8. Participation in annual Assessment Day testing activities. This is required each year of all senior students. Those with special problems may contact the Vice President for Academic Affairs for waiver.
9. At registration each senior must specify the tentative date on which he expects to graduate.
10. Advice in arranging schedules and choosing courses is always given gladly; however, each student is responsible for completing all requirements.

Time Limit in Which to Earn a Degree

Course work for a degree must be completed within ten years of the first term of enrollment. This rule applies to course work taken at Union as well as to course work done at another accredited college or university. Credit earned prior to that time will be evaluated by the Registrar and the Department Head or Division Chairperson of the discipline in which the credit was earned. Exceptions will be made on an individual basis.

Associate Degree — see specific program requirements

Combined Degrees

The bachelor degrees may be granted to students who have completed three years of work at Union College and one year of work in an accredited professional school with the following provisions:

1. The work in the professional school must continue the curriculum in which the student has been enrolled at Union College (pre-law, pre-dentistry, pre-medicine etc.)
2. The student must have completed satisfactorily the minimum requirements for three years of pre-professional work at Union College (ninety-six semester hours with a quality-point standing of at least 2.00) and also the general college requirements for graduation, including the foreign language requirement if a B.A. is desired.
3. The student must have completed satisfactorily the minimum requirements for one year of study at the accredited professional school in which he is enrolled. The number of credits at the end of the four years of study must total at least 128 semester hours.

Degrees with Distinction

Honors in Scholarship are recorded on the diplomas of the students earning them. There are three grades of honors designated respectively: *cum laude, magna cum laude,* and *summa cum laude.* These honors are conferred at graduation upon students who satisfy the following conditions of scholarship:

The honor of *cum laude* is awarded to those students who have earned an average standing of 3.5 overall and at Union.

The honor of *magna cum laude* is awarded to the students who have earned an average standing of 3.75 overall and at Union.

The honor of *suma cum laude* is awarded to those students who have earned an average standing of 3.9 overall and at Union.

Students coming from other colleges may receive honors on completing 61 semester hours of resident study and satisfying the conditions of the scholarship prescribed by the faculty, provided they also furnish such evidence of high scholarship in the institution from which they come as may, in the judgment of the faculty, entitle them to become candidates for honors under the regulations.

As a reward for excellence in scholarship and to promote diligence in study and encourage high ideals, the honorary scholastic fraternity

of Iota Sigma Nu was founded on May 26, 1936. Membership is open upon election to:

(a) All who have met the requirements for graduation with honors.

(b) All students who have at least 74 hours with a 3.2 quality point standing or 100 hours with a 3.0 quality point standing and who have completed a minimum of two years (64 semester hours) in residence at Union College.

ACADEMIC SERVICES

Academic Advising Career Planning and Placement Services

Upon Admission to Union College, students will begin a process whereby career planners and faculty advisors assist them to articulate their career goals, to select academic courses of study appropriate to those goals, and to achieve suitable placement upon completion of their studies.

Academic Advising is considered to be one of the two most important tasks of the faculty—teaching being first. Each student will meet with an academic advisor on an individual basis in order to select courses for each semester. The advisor is also available to help each student learn how to use the resources at Union College and to find solutions to problems which the student might have.

Each student is assigned an academic advisor in his/her chosen field of study. Students who have not made a vocational or professional choice will also be assigned an academic advisor. Upon declaring a major, an advisor in that field will be assigned.

A Career Counselor is also available to assist students. Inventories, workshops, and individual sessions are used to help students in identifying areas of interest or study and work.

The Career Counselor also assists seniors in preparing a placement file and coordinates employment opportunities. This placement file is sent, at no cost, to prospective employers at the student's request.

Undecided Majors

Students who have not made a vocational or professional choice will be assigned an advisor. Once a choice is made, the student will be reassigned to a faculty advisor in the appropriate discipline.

Planned Curriculum

In the beginning of the second semester of their junior year, a curriculum plan will be done by the Registrar. This will indicate the courses the student has already completed toward the degree major on file in the Registrar's Office. This is an agreement between the College and the student. Once the curriculum has been completed only changes approved by the Registrar are binding on the College.

Learning Lab

The Learning Lab offers assistance to students in most freshmen and sophomore level courses. Tutoring is done by trained peer tutors, selected through faculty recommendation, superior academic achievement and personal interviews. Computer assisted instruction is also available in English mechanics and mathematics and in preparing for the various professional examinations. Students should request help as soon as they experience difficulty in a class. There is no fee for using the Learning Lab.

For more information on academic advisement, special services, and counseling, contact the Director of Special Programs.

Computer Facilities

The College has a variety of computers available for student and faculty use, including an HP-3000 minicomputer, an AT&T UNIX-based super-microcomputer, and numerous microcomputer systems. The AT&T computer is connected to BITNET and USENET through a cooperative agreement with the University of Kentucky.

Two microcomputer laboratories on campus are used for instruction and are available for student and faculty use when not being used for classes. One is located in the Mahlon A. Miller Science Center and contains seven Ap-

ple IIe's and a terminal to the AT&T system. The other is in Centennial Hall and contains nine Radio Shack microcomputers, a Macintosh microcomputer, sixteen IBM-compatible microcomputers, an ACER 1100 80386 microcomputer, and six terminals connected to the HP minicomputer; five of the microcomputers are connected to either the HP or the AT&T system. This laboratory is operated by the Computer Information Systems Program and is staffed by student laboratory assistants. The lab is open for general use approximately fifty hours each week, primarily late afternoons and evenings — Monday through Thursday.

The Computer Information Systems Program also operates the AT&T system. CIS majors have the opportunity to gain hands-on experience in the operation of this system. In addition, the ACER 1100 is for use in upper division CIS classes; on this system, students in systems analysis and design classes will use the CASE tool Excelerator, and students in the database course will use R:BASE for DOS.

Additional microcomputers are available for use in other areas. A Macintosh and an Apple IIGS are used in the Learning Lab for tutoring and remedial instruction. A Macintosh is used by the Journalism Program in the production of the student newspaper and yearbook and in the teaching of Journalism classes. An IBM PTS is used in the Office Administration classes. An Apple IIGS is used by the Music Department in the teaching of its classes, and Apple IIe and an IBM PC are available for use in the various science laboratories.

Most administrative offices use microcomputers connected to the College's administrative minicomputer to assist them in their duties.

Developmental Studies

The Developmental Studies Program is designed to help students become more successful in their college studies. Through this program Union College has recognized that each entering student has different strengths and weaknesses. **It is the sum total of these strengths and weaknesses that leads to either success or failure in college study.** Some of the common weaknesses are in reading, writing, and math skills, as well as in personal skills such as time management, goal setting, and decision making.

The College has developed mandatory courses for students who score

1. below 80% on the English Placement Test,
2. below 80% on the Math Placement Test,
3. below 10th grade on the Nelson-Denny Reading Test,
4. below 12 on the ACT taken prior to September 1989 or 16 on the ACT taken after October 1989.

Students with composite scores of below 21 on the Enhanced ACT Assessment taken after October 1989 or 20 on the ACT taken prior to September 1989 or 900 on the verbal and quantitative sections of the SAT are required to take these placement tests before being assigned an advisor and registering for classes.

Students who are not required to take the developmental courses listed below may elect to take one or more of them after consultation with their academic advisor.

The mandatory courses include the following four courses, each carrying 3 semester hours of credit:

1. **English 110, Developmental English** — is designed to provide training in college-level language skills and to prepare students for English 111 and other introductory courses.
2. **Mathematics 100, Elements of Mathematics** — is intended for students who need to improve their arithmetic and elementary algebra skills prior to taking other mathematics courses or courses requiring quantitative reasoning.
3. **General Studies 101, College Reading** — is designed to help students increase their reading level to more effectively handle the reading requirement in college texts. The student's reading level will be evaluated thoroughly to determine the entry level.
4. **General Studies 102, Study Skills** — is designed to increase students' academic and personal confidence through two components. The first will aid students to improve their study and time-management abilities. The second will present decision-making skills that will enable students to clarify their goals, values and interests, allowing them to make effective decisions throughout their life.

Community Education

Community Education at Union College provides courses and workshops that satisfy a wide range of educational needs for adults. These courses provide an opportunity to study a variety of subjects for personal enrichment, to acquire skills for career advancement, or to enjoy cultural and leisure activities. Community Education emphasizes learning as a lifelong experience. The close student-to-instructor rapport that characterizes Union College adds an exciting dimension to this learning experience. Community Education attempts to meet the special educational needs of adults through a variety of forums, e.g., short courses (including Elderhostel), seminars, workshops, and conferences. The program also provides opportunities for students to earn continuing education units for short courses and college credit for telecourses available through Kentucky Educational Television.

Adult Education

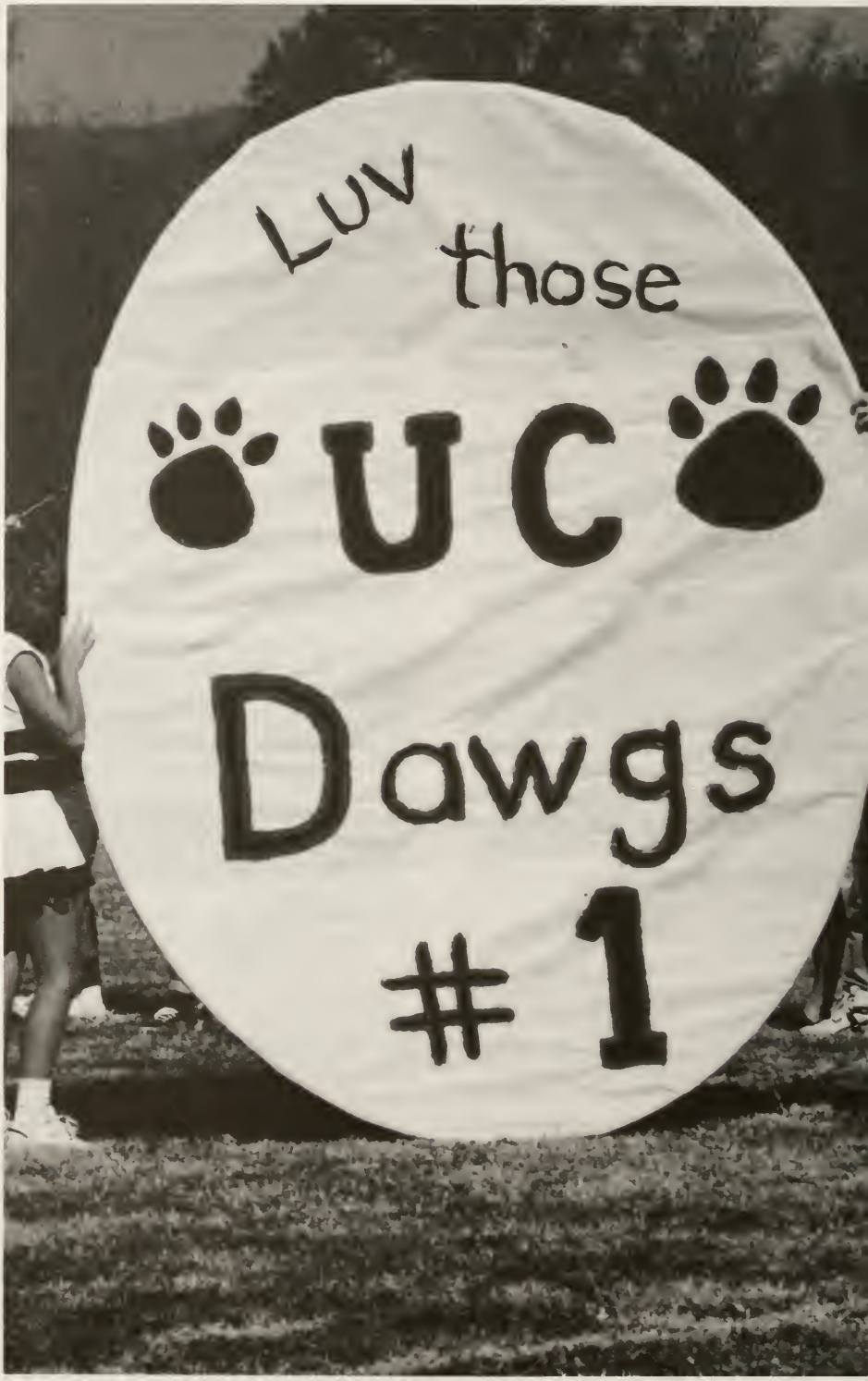
The adult education program includes the Adult Basic Education unit and the JTPA (Job Training Partnership Act) unit which Union College sponsors in conjunction with the Kentucky Department of Education. These programs enable adults who have not received their high school diplomas to prepare for the GED. In addition, Union College co-sponsors the Adult Literacy program with the Kentucky Literacy Commission.

Library and Learning Resource Center

The Abigail E. Weeks Memorial Library houses a collection of approximately 80,000 books and other materials in a newly expanded facility. More than 350 periodicals are regularly received, along with indexing services to facilitate their use. The stacks are open for use by all students. There are a variety of study spaces providing seating for over 300 students, some in rooms designed for group study. The Library staff places first priority on helping students use both the materials and the equipment.

The College's library contains several specialized collections. There is a special collection of over 1,000 volumes devoted to Abraham Lincoln and the Civil War. The Library is also a selective depository for U.S. government publications. In addition, there is a Curriculum Center for education majors, a Music Library with a collection of more than 3,500 recordings and musical scores, and a Science Library.

The Learning Resource Center is housed within the Library and supplements the printed materials of the Library with a broad range of non-print media. This includes slides, audiotapes, videotapes, filmstrips, kits, and computer software. The LRC provides educational materials for classroom use and individualized study. The LRC staff offers individual or group instruction to students and faculty in the use of equipment and materials.


Luv those
UC
Dawgs
#1

CURRICULUM

MAJORS AND DEGREE PROGRAMS

A college major is actually a means to an end — the means by which a student prepares for a future career, entrance into graduate school, or some change in life style. Union College offers a wide range of majors and minors, as part of the Bachelor's degree and a r certificate and 2-year Associate de grams for those not needing a full gree.

Degree Area	Major	Minor	Associate Degree	Area of Concentration	Program
APPLIED SCIENCE DIVISION					
Department of Business					
Accounting	X	X	X		
Business Administration	X	X	X		
Business Education	X				
Business and Music	X				
Computer Information Systems	X	X	X		
Economics		X			
Marketing		X			
Office Administration	X	X	X		
Department of Education					
Early Elementary Education	X				
Elementary Education			X		
Middle Grades Education	X				
Secondary Education	X				
Department of Health and Physical Education					
Health Education		X			
Physical Education	X				
Military Science		X			X
HUMANITIES DIVISION					
Department of English and Foreign Languages					
English	X	X		X	
English with a Journalism Emphasis	X				X
Department of Music and Fine Arts					
Church Music	X				
Drama	X	X			
Drama and Speech	X	X			
Music	X	X			
Music and Business	X				
Music Education	X				
Department of Religion and Philosophy					
Christian Education	X				
Philosophy		X			
Philosophy/Religion	X				
Religion	X	X			

Degree Area	Major	Minor	Associate Degree	Area of Concentration	Program
NATURAL SCIENCE DIVISION					
Biology	X	X			
Chemistry	X	X			
Computer Science		X			
Environmental Studies		X			
Mathematics	X	X			
Physics	X	X			
Pre-Dentistry					X
Pre-Engineering					X
Pre-Medical Technology					X
Pre-Medicine					X
Pre-Optometry					X
Pre-Pharmacy					X
Pre-Physical Therapy					X
Pre-Veterinary Medicine					X
Science Education	X				
Mathematics-Physical Science				X	
Science				X	
SOCIAL SCIENCE DIVISION					
Appalachian Semester					X
Appalachian Studies		X			
History	X	X			
History and Political Science	X				
Political Science		X			
Pre-Law					X
Psychology	X	X			
Social Studies				X	
Sociology	X	X			

GRADUATE, COOPERATIVE, AND INTERDISCIPLINARY PROGRAMS

Graduate Program in Education

Union College offers a unique graduate program designed for in-service teachers in the public schools. The College grants the 5th year certificate for Kentucky teachers, the M.A. degree in Education in the following areas: reading specialist, elementary education, middle school education, gifted education, kindergarten education, and secondary education with emphasis in either health, history, science, social science, psychology or sociology.

Work beyond the Masters level leading to certification as an elementary or secondary school principal, supervisor of instruction, director of pupil personnel as well as Rank I (30 hours beyond M.A.) is available. Many courses are offered off-campus.

Qualified holders of the Bachelor's degree should contact the Dean of Graduate Academic Affairs for brochures, catalogs, and information about the graduate program.

Cooperative Programs Bellarmine College (Nursing)

A cooperative arrangement between Union College and Bellarmine College provides registered nurses from the eastern Kentucky area an opportunity to pursue a bachelor's degree in nursing at Union College. Selected liberal arts and elective courses are taught by Union College faculty; professional nursing courses are taught by Bellarmine College faculty at centers in eastern and central Kentucky locations. Clinical experiences may be offered in the area.

The B.S.N. Degree is conferred by Bellarmine College. This program offers the registered nurse an opportunity to receive a B.S.N. while continuing to work in eastern Kentucky. Estimated completion time for the program is four years on a part-time basis.

Interested persons should file Union College and Bellarmine applications. An official transcript and a copy of the RN license should accompany the application to Bellarmine. Students must meet the general standards of both Colleges.

For more information, contact the Admissions Office at Bellarmine College at 1-800-633-5114.

Sue Bennett College

Union College also has a cooperative agreement with Sue Bennett College, a private two year United Methodist College located in London, Kentucky (25 miles from Union's campus). Under the agreement, Union offers junior, senior, and graduate level courses in education and business on the Sue Bennett campus. This agreement also facilitates the articulation of transfer credit and provides scholarships for qualified Sue Bennett students who transfer to Union.

Army ROTC

This is a program which provides college trained officers for the Regular United States Army, U.S. Army Reserve and U.S. Army National Guard. Union College offers both the Basic and Advanced courses to qualified students. This program is affiliated with Eastern Kentucky University Army ROTC and specific information can be obtained by making an appointment with the ROTC Representative located on the second floor of the Physical Education Building. (See Applied Science Division for curriculum.)

Pre-Professional Programs

Union College offers several pre-professional programs that are affiliated with other institutions and agencies. These include Dentistry, Engineering, Medical Technology, Medicine, Optometry, Pharmacy, Physical Therapy, and Veterinary Medicine. College personnel are available in the Natural Science Division to advise and counsel students who are interested in these programs. More specific information can be obtained in the Natural Science Division section of this catalog.

Kentucky Institute for European Studies (KIES)

Union College is a co-operating member of the Kentucky Institute for European Studies (KIES). The college joins with other Kentucky

colleges and universities to provide summer study opportunities in six different European locations. The programs in France, Spain, Germany, Austria, and Italy are open to all Union College students and provide courses which contribute to all of our educational programs.

Appalachian Studies

Reflecting the College's primary mission of improving the quality of life of the Appalachian people, Union offers a multi-faceted Appalachian Studies Program. One or more components of the program should be of interest to all students. The program seeks to develop an appreciation of the people, culture, and socio-economic conditions of the mountain area; to provide opportunities for direct service, research and personal experience in the region; to provide the skills and critical understanding needed to work in this area; and to help the student develop an understanding of himself and others.

The program at present consists of the Appalachian Semester outlined in detail below, and of various academic courses, identified in appropriate departmental and division course listings. The student will find an interdisciplinary approach to the history, politics, music, natural resources, economics, and other aspects of the region, which will stand him in good stead no matter where he or she may live later.

Appalachian Semester

The Appalachian Semester is a unique interdisciplinary academic program in which mature second semester sophomore, junior, and senior students from Union College and other institutions throughout the United States devote one full semester to studying the Appalachian region— its strengths, problems and challenges. Students earn a total of fifteen semester hours of academic credit. Nine hours of credit are offered at the upper division level, and six hours are offered at either the lower or upper division level for field work in a variety of disciplines. Field work may be either experiential learning conducted in a local service agency or other institutional settings, or it may be directed study in a particular subject. Possible directed study subjects are oral histories, politics, religion, folklore, and environmental issues. The program is designed to combine classroom learning with first-hand knowledge gained through research or a practicum setting. As such, the Semester hopes to promote a critical understanding of a distinct aspect of American society from an interdisciplinary approach.

Opportunities are provided to discuss regional issues with local scholars, politicians, and writers. Field trips are coordinated with seminar discussions in order to introduce participants with the unique components of Appalachian culture.

Course descriptions are included in the curriculum section of this catalog. The Appalachian Semester is offered both spring and fall semesters. Detailed information and application forms are available from the Coordinator, Appalachian Semester, Union College.

THE LIBERAL EDUCATION CORE

I. BASIC COMPETENCIES **12-13 h**

A. FRESHMAN COMPOSITION 6 h
ENGL 111 Freshman Composition I
ENGL 112 Freshman Composition and Literature

B. MATHEMATICS 3 h
BHSC 245 Basic Statistics: Theory and Application
MATH 108 Intermediate Algebra
MATH 131 College Algebra
MATH 203 Structure of the Number System

C. PHYSICAL WELL BEING 3 h
HLTH 131 First Aid & Safety Education
HLTH 270 Personal & Community Health
OR
Three Physical Education Activity Courses

II. HUMANITIES **12-13 h**

A. LITERATURE 3 h
ENGL 212 Western Literature

B. FINE ARTS APPRECIATION 3-4 h
ART 132 Introduction to Art
ART 273 Art History
DRAM 131 Introduction to the Theatre
MUSIC 121 Introduction to Music
MUSIC 161 or 162 Foundations of Music

C. LITERATURE/FINE ARTS ELECTIVE 3 h
An additional course from B above or one of:
ENGL 221-222 Survey of English Literature
ENGL 231-232 Survey of American Literature

D. RELIGION AND PHILOSOPHY 3 h
PHIL 151 Introduction to Philosophy
RLGN 111 Old Testament History, Literature & Interpretation
RLGN 112 New Testament History, Literature & Interpretation
RLGN 131 World Religions

III. HISTORY, SOCIAL & BEHAVIORAL SCIENCES **9 h**

A. WORLD HISTORY 3 h
HIST 111 World History to 1500
HIST 112 World History since 1500

B. HISTORY ELECTIVE 3 h
An additional course from A above or one of:
HIST 201 U.S. History to 1865
HIST 202 U.S. History since 1865

C. SOCIAL SCIENCE — STRUCTURE ELECTIVE 3 h
ANTH 221 Introduction to Cultural Anthropology
ECON 153 Principles of Economics I
GEOG 101 Introduction to Geography
PLSC 101 American National Government
PSYH 111 Introduction to Psychology
SOCI 131 Introduction to Sociology

IV. NATURAL SCIENCES — 7-8 hrs.

Choose two courses from areas A, B, or C; each of the courses must be in a separate area and one must include a lab.

A. BIOLOGICAL SCIENCE — 3-4 hrs.
- BIOL 109 Elements of Biology 3
- BIOL 111 Introduction to Biology 4

B. PHYSICAL SCIENCE — 3 hrs.
- CHEM 111 General Chemistry 3
- PHYS 111 Elements of General Physics 3
- PHYS 112 Elements of General Physics 3

C. ENVIRONMENTAL/EARTH SCIENCE — 3-4 hrs.
- ENVS 101 Man & the Environment 3
- ENVS 110 Physical Systems of the Environment 4
- PHYS 105 Astronomy 4

D. LABORATORY EXPERIENCE — 1 hr.

If not already included with a course in A, B, or C above.
- BIOL 110 Elements of Biology Laboratory ..... 1 (BIOL 109)
- CHEM 131 General Chemistry Laboratory ..... 1 (CHEM 111)
- PHYS 113 Elements of General Physics Laboratory ..... 1 (PHYS 111)
- PHYS 114 Elements of General Physics Laboratory ..... 1 (PHYS 112)

V. COMPLETION OF CORE — 6-7 hrs.

Select a course from two of the following 3 areas.

A. COMMUNICATIONS/LANGUAGES — 3 hrs.
- FREN 111 or 112 Elementary French 3
- GRMN 111 or 112 Elementary German 3
- SPAN 111 or 112 Elementary Spanish 3
- SPCH 131 Fundamentals of Speech 3
- SPCH 231 Oral Interpretation of Literature 3

B. SOCIAL SCIENCE — PROBLEMS ELECTIVES — 3 hrs.
- ECON 154 Principles of Economics II 3
- GEOG 241 Geography of Appalachia 3
- HIST 233 History of Appalachia 3
- PLSC 231 International Politics 3
- SOCI 241 Sociology of Appalachia 3
- SOCI 251 Current Socio-Economic Problems 3
- SOCI 271 Marriage & the Family 3

C. NATURAL SCIENCE — 3-4 hrs.

Select a course from the Natural Science Division that is in a discipline (Biology, Chemistry, Environmental Studies, Physics) not already used to satisfy Section IV.

Students are expected to complete this core during their Freshman-Sophomore years. Some majors uch as education require specific courses. Consult your advisor.

ACADEMIC DIVISIONS

DIVISION OF APPLIED SCIENCES

Larry Inkster, *Chairperson*
Department of Business Department of Education
Department of Health & Physical Education
Military Science (ROTC Program)

I. DEPARTMENT OF BUSINESS

Paula J. Allen, *Department Head*
Accounting — Business Administration — Business Education
Computer Information Systems — Economics — Marketing — Office Administration

BACHELOR OF SCIENCE DEGREES IN BUSINESS

In addition to the general college requirements, all candidates for the Bachelor's degree mus complete the following courses in one of the major fields listed below. Students with a major o minor in Business must have a 2.0 average for all courses in each major or minor. (Students wh choose to complete the foreign language requirement may elect to receive a Bachelor of Arts degree.)

Common Courses Required of All Candidates		*Semester Hours*
ACTG 271, 272	Principles of Accounting I & II	6
BUAD 310	The Legal Environment of Business	3
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153, 154	Principles of Economics I & II	6
		27

and, as applicable:

Accounting Major		*Semester Hours*
ACTG 331	Cost Accounting	3
ACTG 371, 372	Intermediate Accounting I & II	6
ACTG 376	Tax Accounting	3
ACTG 431	Accounting Information Systems	3
ACTG 433	Auditing	3
ACTG 471, 472	Advanced Accounting I & II	6
COMP 241	Microcomputer Applications in Business	3
OFAD 302	Business Communications	3
	Accounting Electives (300 level or above)	3
		33

Business Administration Major		*Semester Hours*
BHSC 245	Basic Statistics: Theory and Application	3
BUAD 372	Personnel Management	3
BUAD 451	Business Policy	3
COMP 241	Microcomputer Applications in Business	3
OFAD 302	Business Communications	3
	Electives from the Department of Business (200 level and above)	12
		27

Computer Information Systems Major *Semester Hours*

BHSC 245 or	Basic Statistics: Theory and Application	3
MATH 108 or	Intermediate Algebra	3
MATH 131	College Algebra	3
BHSC 245 if not used to satisfy Liberal Education Core, otherwise MATH 108 or 131.		
COMP 221, 222	Business Application Programming I and II	6
COMP 331	Structured Systems Analysis	3
COMP 332	Structured Systems Design	3
COMP 441	Data Bases	3
COMP 455	Applied Software Development Project	3
COMP 235 or	RPG Programming	3
COMP 241	Microcomputer Applications in Business	
	Computer Elective (300 or 400 level)	3
OFAD 302	Business Communications	3
		30

Office Administration Major *Semester Hours*

OUED 331	Office Practice	4
COMP 241	Microcomputer Applications in Business	3
OFAD 112	Intermediate Typewriting	3
OFAD 122	Intermediate Shorthand	3
OFAD 211	Advanced Typewriting	3
OFAD 301	Business English: Theory and Applications	3
OFAD 302	Business Communications	3
	Elective from the Department of Business (200 level or above)	3
	Elective from the Department of Business (300 level or above)	3
		28

Business and Music Major *Semester Hours*

BUAD 272	Salesmanship	3
MUSC 161, 162	Foundations of Music	8
MUSC 261, 262	Harmony	6
MUSC 111-412	Applied Music	8
MUSC 322	Music History	3
MUSC 171, 172, 173, 175, 176	String, Woodwind, Piano, Brass and Percussion Classes (Choice of any 3)	3
OFAD 302	Business Communications	3
	Elective from the Department of Business (300 level or above)	3
	Field Placement	3-10
		40-47

BACHELOR OF SCIENCE DEGREE IN BUSINESS EDUCATION

Students should see the Education Department section for Certification Requirements.

Teaching Major in Basic Business *Semester Hours*

ACTG 271, 272	Principles of Accounting I & II	6
BUAD 310	The Legal Environment of Business	3
BUAD 352	Principles of Management	3
OUED 331 or	Office Practice	4
OFAD 287	Office Internship	3
OUED 362	Methods of Teaching Basic Business Subjects	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics	3
OFAD 112, 211	Intermediate and Advanced Typewriting	6
OFAD 302	Business Communications	3
		37

Teaching Major in Secretarial Skills		Semester Hou
ACTG 271 or 272	Principles of Accounting I or II	3
BUED 331 or	Office Practice	4
OFAD 287	Office Internship	3
BUED 361	Methods of Teaching Secretarial Business Subjects	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153 or 154	Principles of Economics I or II	3
OFAD 112, 211	Intermediate and Advanced Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 302	Business Communications	3
	Elective from the Department of Business	3
		33-34

For endorsements in other business subjects, see the head of the Education Department.

ASSOCIATE OF APPLIED SCIENCE DEGREES IN BUSINESS

The following two-year programs lead to the award of the A.A.S. degrees in the emphasis in dicated. Union College provides a "career ladder" approach to learning in that students who com plete these degrees may immediately apply the hours earned on the two-year degree toward a Bachelor's degree, or return to college later with guarantee that the credits previously earned a Union will apply toward the 4-year degree.

Common Courses Required of All Candidates		Semester Hours
ACTG 271	Principles of Accounting I	3
BUED 105	Mathematics Applied to Business	2
COMP 105	Introduction to Microcomputer Packages	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153	Principles of Economics I	3
ENGL 111	Freshman Composition I	3
ENGL 112	Freshman Composition and Literature	3
OFAD 302	Business Communications	3
	Humanities General Requirement	3
	Natural Science General Requirement	4
	Social Science General Requirement	3
		33

and, as applicable:

Accounting Emphasis (AAS)		Semester Hours
ACTG 272	Principles of Accounting II	3
BUAD 310	The Legal Environment of Business	3
COMP 241	Microcomputer Applications in Business	3
ECON 154	Principles of Economics II	3
	Accounting Electives (300 level or above)	12
	Non-Business Electives	6
		30

Business Administration Emphasis (AAS)		Semester Hours
ACTG 272	Principles of Accounting II	3
BUAD 310	The Legal Environment of Business	3
BUAD 352	Principles of Mangement	3
COMP 241	Microcomputer Applications in Business	3
ECON 154	Principles of Economics II	3
	Electives from the Department of Business (200 level or above)	9
	Non-Business Electives	6
		30

Computer Information Systems Emphasis (AAS)		*Semester Hours*
ACTG 272	Principles of Accounting II	3
BHSC 245	Basic Statistics: Theory and Application	3
COMP 221, 222	Business Application Programming I and II	6
COMP 241	Microcomputer Applications in Business	3
COMP 331	Structured Systems Analysis	3
ECON 154	Principles of Economics II	3
MATH 108, 111 or 241	Mathematics Course	3 or 4
	Computer Elective (300 or 400 level)	3
	Non-Business Electives	6
		33-34

Office Administration Emphasis (AAS)		*Semester Hours*
BUED 331	Office Practice	4
COMP 241	Microcomputer Applications in Business	3
OFAD 111, 112	Elementary and Intermediate Typewriting	6
OFAD 121, 122	Elementary and Intermediate Shorthand	6
OFAD 301	Business English: Theory and Applications	3
	Non-Business Electives	6
		28

MINORS AVAILABLE TO ALL STUDENTS

Accounting — Twenty-one semester hours in Accounting at 200 level and above.

Business Administration — Accounting 271-272, Business Administration 310 and 352. Computer Information Systems 131, Economics 153, and three hours of Business electives (200 level or above).

Computer Information Systems — Twenty-one semester hours consisting of the following: Computer Information Systems 131, 221, 241, 331 and at least nine additional hours in Computer Information Systems courses numbered 200 or above (at least three of these hours must be numbered 300 or above).

Economics — Twenty-one semester hours consisting of the following: Economics 153, 154; Behavioral Sciences 245; Computer Information Systems 105 or 241, Economics 251, History 241, or other experimental courses, and at least six additional hours in Economics courses numbered 300 or above.

Marketing — Twenty-one semester hours consisting of the following: Business Administration 272, 321, 370, and 421; Computer Information Systems 241; and Economics 153 and 154.

Office Administration — Twenty-two semester hours including Office Administration 112, 122, 301, Business Administration 352, Business Education 331, and at least six additional hours in Office Administration courses numbered 200 or above.

ACCOUNTING

Accounting 170. The Accounting Cycle. **(S)(3)**
This course is designed for students who have not studied accounting in high school or who need basic remedial studies in accounting. Subjects covered include journalizing, posting, worksheets, adjusting and closing entries. No prerequisites.

Accounting 271. Principles of Accounting I. **(F)(3)**
Discussion of the concept of double-entry accounting. Introduction to the basic procedures in the accounting cycle, receivables, payables, inventories and other systems.

Accounting 272. Principles of Accounting II. **(S)(3)**
A continuation of Accounting 271, this course covers accounting procedures relative to partnerships, corporations, budgets, costing and financial report generation. *Prerequisite:* Accounting 271.

Accounting 331. Cost Accounting. **(F)(3)**
Special topics in job order and process cost for materials, labor, and overhead with variable and fixed portions. Budgeting and variances from budget are also covered. *Prerequisite:* Accounting 272.

Accounting 371. Intermediate Accounting I. (F)(3
Accounting topics including the income statement, balance sheet and change in owners' equit statements. Cash, receivables, inventories, plant, investments and intangible assets are also cov ered. *Prerequisite:* Accounting 272.

Accounting 372. Intermediate Accounting II. (S)(3
Continuation of Accounting 371 covering current liabilities, contingent liabilities, long-term lia bilities, accounting for income taxes, and owners' equity. Statement of Change in Financial Po sition, financial statement analysis and the impact of changing prices are also covered. *Prerequisite* Accounting 371.

Accounting 376. Tax Accounting. (S)(3
Problems of federal taxes for individuals, partnerships, and corporations are reviewed in depth *Prerequisite:* Accounting 272.

Accounting 430. Accounting Theory. (F)(3
Covers current accounting literature, including publications of the American Institute of Certifie Public Accountants (AICPA), the Financial Accounting Standards Board (FASB), and the Securitie and Exchange Commission (SEC). *Prerequisite:* Accounting 372.

Accounting 431. Accounting Information Systems. (F)(3
This course studies the principles and problems of accounting system design and installation organization for accounting control, internal control procedures, and internal reports. *Prerequisites* Accounting 331 and 372.

Accounting 433. Auditing. (S)(3
Topics covered include discussion of the ethics and liability of the auditor, verification, analysis interpretation of accounting records, issuance of audit reports and other reports by CPA's. *Pre requisite:* Accounting 372.

Accounting 471. Advanced Accounting I. (F)(3
Advanced in-depth discussion of accounting for joint ventures, consolidated statements, inter company transactions, partnerships. *Prerequisite:* Accounting 372.

Accounting 472. Advanced Accounting II. (S)(3
Continuation of Accounting 471 covering multi-national accounting, interim and segmental re porting, governmental and not-for-profit accounting, and insolvency. *Prerequisite:* Accounting 471

Accounting 488. Business Seminar. (on demand)(3
An advanced course of selected topics of interest in the field of Accounting. *Prerequisites:* Busines major/minor with Junior or Senior standing and twenty-one credit hours in business courses.

BUSINESS ADMINISTRATION

Business Administration 151. Introduction to Business. (F)(3
Forms of business ownership, marketing, personnel management, finance, and government reg ulations are discussed in an overview of organizations.

Business Administration 272. Salesmanship. (F)(3
The interpretation of sales techniques and methods, prospecting customers, interviews, sales presentations, demonstrations, and closing the sale are presented.

Business Administration 310. The Legal Environment of Business. (F,S)(3
An overview of traditional legal environment topics such as judicial reasoning, administrative law, anti-trust law, contracts, torts, agencies, bailment, real and personal property, leases, and bankruptcy.

Business Administration 321. Principles of Marketing. (S)(3
Study of the movement of goods from producer to consumer and an examination of the functions of the marketing process, marketing institutions, channels of distribution, legal aspects, and policy considerations.

Business Administration 351. Principles of Finance. (F)(3
The principal objective of this course is to introduce managerial finance as a functional area of business, including financial analysis, working capital practices, capital budgeting, corporate valuation, cost of capital and capital structure. *Prerequisite:* Accounting 271.

Business Administration 352. Principles of Management. (F)(3
This course introduces students to the development of organization plans and policies, as well as providing an exposure to basic theoretical developments in management thought over the last one hundred years. Particular attention will be given to the topics of organizational design, control, quantitative techniques of management operations and theories of leadership.

Business Administration 370. Advertising. **(F)(3)**
An overview of the social, economic, and marketing environment in which advertising functions. This course will provide an in-depth coverage of advertising activities as they relate to consumer-driven mass media marketing activities. The course will focus on advertising planning and management as well as media strategies available to organizations. Although an understanding of marketing in general is helpful, Business Administration 321 is not a prerequisite.

Business Administration 372. Personnel Management. **(S)(3)**
Using a system-process model, this course discusses the various subsystems (recruitment, selection, compensation, task specification, etc.) which fall under the responsibility of the personnel management function. The subsystems are designed to provide for the efficient and effective utilization of human resources in business concerns. *Prerequisite:* Business Administration 352.

Business Administration 421. Transportation and Physical Distribution. **(F)(3)**
This course is an introductory in depth study of the broad field of Transportation and Business logistics. The course will elaborate upon material presented in principles of marketing. However, a major emphasis will be the regulatory environments of each of the major modes of transport: Rail, motor, water, air, and pipeline. Emphasis will be placed on the crucial nature of distribution and handling of materials in domestic and international markets. A systems approach to transportation, warehousing, material handling, packaging, etc. will be followed. *Prerequisites:* Business Administration 321 or permission of the instructor.

Business Administration 451. Business Policy. **(S)(3)**
This course serves as a "capstone course" which attempts to bring together knowledge acquired in all of the functional areas of business (management, marketing, finance, accounting, etc.) in a case analysis situation. A strategic decision-making model will be presented as the basis for the alternative courses of action, and the implementation of the strategy chosen. *Prerequisites:* Senior status in the Business Administration program and the successful completion of Accounting 272, Business Administration 321, 351, 352, and 372.

Business Administration 488. Business Seminar. **(on demand)(3)**
An advanced course of selected topics of interest in the field of Business Administration. *Prerequisites:* Business major/minor with Junior or Senior standing and twenty-one credit hours in business courses.

BUSINESS EDUCATION

Business Education 105. Mathematics Applied to Business. **(F)(2)**
The application of basic mathematics to business operations including: Markups, markdowns, interest and discounts, bank reconciliation and graphing.

Business Education 331. Office Practice. **(S)(4)**
Emphasis is placed on the development of office proficiency, records management, internal and external office communications, information processing and administrative support services. Laboratory required. *Prerequisite:* Office Administration 112.

Business Education 361. Methods of Teaching Secretarial Business Subjects. **(on demand)(3)**
A study of basic dimensions of methods, materials, and objectives in teaching secretarial subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson plans, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tapes. *Prerequisites:* Admission to Teacher Education Program, Office Administration 112 and 122 and Junior standing. Students must have at least twelve hours from the Union College Department of Business. Transfer students must have permission of the instructor to take this course.

Business Education 362. Methods of Teaching Basic Business Subjects. **(F)(3)**
A study of the methods, materials, and objectives in teaching basic business subjects in the secondary school. Discussion includes teaching strategies such as questioning, lecturing, problem-solving, constructing lesson objectives, constructing valid and reliable tests, interpreting test scores, and presenting lectures on video tape. *Prerequisites:* Admission to Teacher Education Program and Junior standing. Students must have at least twelve hours from the Union College Department of Business. Transfer students must have permission of the instructor to take this course.

Business Education 488. Business Seminar. **(on demand)(3)**
An advanced course of selected topics of interest in the field of Business Education. *Prerequisites:* Business major/minor with Junior or Senior standing and twenty-one credit hours in business courses.

COMPUTER INFORMATION SYSTEMS

Computer Information Systems 105. Introduction to Microcomputer Packages. (F,S)(
A study and evaluation of the major packages available for microcomputers, including wo processing, spreadsheet, graphics and data base packages.

Computer Information Systems 121. BASIC Programming. (F,S)(
A study of the BASIC programming language including problem definition, flowcharting, a solving problems that are adaptable to business and/or science applications. Laboratory wo designed to illustrate the basic principles of structured programming in BASIC will provide hanc on experience on microcomputers. *Prerequisites:* Business Education 105 or any Mathematics cour numbered 108 or above.

Computer Information Systems 131. Introduction to Computer Information Systems. (F,S)(
Survey of the fundamental computer concepts, hardware, and operations, especially as appli in a business setting. In the second half of the term, students will be introduced to the fund mentals of programming concepts and documentation standards, using the BASIC programmi language as a model.

Computer Information Systems 221. Business Application Programming I. (F)(
A study of the fundamental principles of algorithm development and structured computer pr gramming used in solving business information systems problems, including an introduction design and implementation documentation used by industry. Major topics include control stru tures, elementary data structures, program design techniques, and sequential files. A subset COBOL is used as the programming language. *Prerequisites:* Computer Information Systems 1 and one of the following: Mathematics 108 or 111 or Accounting 271.

Computer Information Systems 222. Business Application Programming II. (S)(
A continuation of Business Application Programming I. A study of systems of programs and t techniques for their design and development. Major topics include modular design of algorithm uses of bulk storage devices, random files, master-file maintenance systems, advanced repo writing and business algorithms, dynamic data structures, and subprograms. *Prerequisite:* Co puter Information Systems 221.

Computer Information Systems 235. RPG Programming. (S)(
A study of the RPG II programming language includes problem definition, flowcharting, and t solution of problems that are adaptable to business applications. *Prerequisites:* Computer Infc mation Systems 131 and one of the following: Mathematics 108 or 111 or Accounting 271.

Computer Information Systems 241. Microcomputer Applications in Business. (F,S)(
A survey of computer applications of information needs in business, of microcomputers, and information systems that use these needs and a review of the standard software packages availab to support a microcomputer-based executive workstation, including hands-on work with wo and text processors, electronic spreadsheets, file and data base management systems, graphi packages, and accounting and other common application packages. Student must score 75% computer proficiency exam, or have completed Computer Information Systems 105 with a "C or better to enroll in this course. *Prerequisite:* Computer Information Systems 131. *Pre- or C requisite:* Accounting 271.

Computer Information Systems 250. Scientific Programming in FORTRAN. (F)(
A study of the fundamental principals of algorithm development and structured programmi used to solve problems from the areas of mathematics, the physical sciences, and engineerin including an introduction to design and implementation documentation. Major topics are d bugging, control structures, and elementary data structures. FORTRAN is used as the progra ming language. *Prerequisites:* Computer Information Systems 131 and one of the followi Computer Information Systems 221 or Mathematics 241.

Computer Information Systems 310. Introduction to Computer Architecture. (S)(
A study of the fundamental concepts and terminology of computer architecture (including a sembly languages) with emphasis on the relationships among hardware, architecture, syste software, and applications software. *Prerequisite:* Computer Information Systems 221 or 250. (Ev years only.)

Computer Information Systems 315. Operating Systems. (S)(
Survey of the major components of operating systems, comparing and contrasting various syste including batch, time sharing, and microcomputer systems. *Prerequisite:* Computer Informati Systems 221 or 250. (Odd years only.)

Computer Information Systems 331. Structured Systems Analysis. **(F)(3)**
A study of the system development life cycle emphasizing documentation and communication aids, interpersonal approaches and techniques used in the analysis of systems, and physical and logical specification of a system. This course involves extensive writing; thus, students are expected to be familiar with basic writing skills. *Prerequisites:* Computer Information Systems 221 and Accounting 271.

Computer Information Systems 332. Structured Systems Design. **(S)(3)**
(A continuation of Structured Systems Analysis.) A study of the structured design techniques used in designing new logical and physical systems for a given business related problem including documentation and communication aids. Alternative physical systems are designed and a multidimensional cost/benefit evaluation is performed. *Prerequisites:* Computer Information Systems 222 and 331.

Computer Information Systems 421. Software Engineering. **(on demand)(3)**
A study of the management and technical tools, procedures, and concepts used in creating software systems for specific application. Students will design and implement a software system. *Prerequisites:* Computer Information Systems 250, 315 and 331.

Computer Information Systems 441. Data Bases. **(F)(3)**
A study of software design in a data base environment, of data base systems, and of data base programming. A variety of hierarchical, network and relational data bases are studied. *Prerequisite:* Computer Information Systems 332.

Computer Information Systems 455. Applied Software Development Project. **(S)(3)**
A study of application system development and project management. Students will design and implement a comprehensive system to solve a complex case study. *Prerequisites:* Computer Information Systems 332 and 441.

Computer Information Systems 488. Business Seminar. **(on demand)(3)**
An advanced course of selected topics of interest in the field of Computer Information Systems. *Prerequisites:* Business major/minor with Junior or Senior standing and twenty-one credit hours in business courses.

ECONOMICS

Economics 153. Principles of Economics I. **(F,S)(3)**
The primary objective of this course is to introduce the student to macroeconomic theory including a study of the economizing problem, pure and mixed capitalism, demand and supply, the economic functions of government, national income accounting, the business cycle, employment theory, money and banking, and fiscal policy.

Economics 154. Principles of Economics II. **(F,S)(3)**
The primary objective of this course is to introduce the student to microeconomic theory, including demand and supply analysis, elasticity, the production function, price and output determination, costs of production, pricing and employment of resources, and market structures.

Economics 251. Environmental Economics. **(S)(3)**
Societal choice in the use of scarce resources is related to ecosystem survival, environmental quality, and human welfare.

Economics 363. Money and Banking. **(F)(3)**
Objectives of this course include introducing the student to the development of the commercial banking system, the Federal Reserve System, and further exploration of fiscal and monetary policy. *Prerequisite:* Economics 153.

Economics 488. Business Seminar. **(on demand)(3)**
An advanced course of selected topics of interest in the field of Economics. *Prerequisites:* Business major/minor with Junior or Senior standing and twenty-one credit hours in business courses.

Additional courses listed under: Behavioral Sciences 245 and History 241.

OFFICE ADMINISTRATION

Office Administration 111. Elementary Typewriting. **(on demand)(3)**
A first course in typewriting for the secretarial student. Also for those needing one course in typing for personal use. Keyboard and fundamental processes are presented. Students presenting one or more units of high school typewriting may not take this course.

Office Administration 112. Intermediate Typewriting. (F)(
Emphasis is placed upon techniques, speed, and accuracy. Electronic typewriters are introduce
Prerequisite: Office Administration 111 or one unit of high school typing or the equivalent.

Office Administration 121. Elementary Shorthand. (F)(
Principles of Gregg Shorthand, Series 90. Places emphasis on theory and developing reading ar
writing skills. Letter transcription introduced. Students presenting one or more units of hig
school shorthand may not take this class. Laboratory required. (Even years only.)

Office Administration 122. Intermediate Shorthand. (S)(
Greater emphasis placed on writing and transcribing with speed and accuracy. Gregg theory ar
basic typewriting concepts reviewed. *Prerequisites:* Office Administration 111 and 121 with a grac
of at least "C" or the equivalent. (Even years only.)

Office Administration 211. Advanced Typewriting. (S)(
This is the final course in typing. Simulations in the sales office, general office, accounting offic
executive office, legal office, medical office, technical office, and government office are complete
on electronic typewriters. Speed and accuracy are emphasized. *Prerequisite:* Office Administratic
112 with a grade of at least "C" or the equivalent.

Office Administration 221. Dictation and Transcription. (on demand)(
Emphasis placed on speed in taking dictation and in transcription skills. *Prerequisites:* Offic
Administration 112 and 122 with a grade of at least "C" or the equivalent.

Office Administration 301. Business English: Theory and Applications. (F)(
Comprehensive review of grammar and usage. Emphasizes and reinforces business applicatior
and vocabulary in areas such as business law, word processing, merchandising managemen
and computer information systems. *Prerequisite:* English 111 with a grade of at least "C".

Office Administration 302. Business Communications. (S)(
Realistic methods of mastering writing skills needed in business situations. Emphasizes instructio
in both the basic and advanced techniques of preparing and organizing business letters, mem
oranda, and reports. Also enhances speaking, reading and listening skills. *Prerequisite:* Englis
111 or Office Administration 301.

Office Administration 488. Business Seminar. (on demand)(
An advanced course of selected topics of interest in the field of Office Administration. *Prerequisite*
Business major/minor with Junior or Senior standing and twenty-one credit hours in busines
courses.

II. DEPARTMENT OF EDUCATION

Kenneth J. Henry, *Department Head*
Early Elementary Education — Middle Grades Education — Secondary Education

The undergraduate programs in the Department of Education have as their primary objective th
preparation of superior teachers for public and private schools.

At Union College the education of prospective teachers is the responsibility of the College as
whole, not the Department of Education alone.

The teacher education programs described in the following pages prepare the student to receiv
a baccalaureate degree and, upon recommendation of the College, a Kentucky teacher's certificate
A student who wishes to teach in a state other than Kentucky should determine certification re
quirements in that state (usually quite similar to Kentucky's), and plan his program accordingly
Information on certification requirements in other states is available in the Registrar's Office and i
the Career Planning and Placement Office.

Students preparing for teacher certification must be admitted to the Teacher Education Progran
of the College before they will be allowed to register for any of the professional education course
other than Education 241, 242 and 351.

Graduates may continue their professional preparation by entering the Graduate Studies Program
A separate catalog is available from the Dean of Graduate Academic Affairs.

Goals of the Teacher Education Program

The Teacher Education Program at Union College seeks to ensure the realization of the following outcomes by each student:

1. Professional Knowledge
   —develops a historical perspective of the development of American schooling
   —understands human growth and development
   —posseses knowledge of educational psychology/theories of learning
   —understands various instructional theories
   —has knowledge of special needs populations
   —understands the professional/ethical role of the teacher
   —develops a personal teaching philosophy
2. Professional Abilities
   —identifies and utilizes research to facilitate teaching
   —plans instruction
   —implements instruction
   —evaluates instruction
   —stimulates student learning
   —manages classroom effectively
   —maintains positive relations with students
   —maintains classroom discipline
   —maintains positive relations with colleagues, parents, and community
3. Professional Traits
   —practices appropriate personal/professional behavior
   —receptive to change/new ideas
   —willing to take risks/learns from successes and failures
   —strives for high levels of achievement
   —assumes multiple professional roles
   —seeks opportunities for professional growth
   —attends to special needs populations
   —values cultural diversity

Requirements for Admission to Teacher Education Program

Students who wish to enter teacher education must prepare a folder for presentation to the Teacher Education Committee for approval. The folder must be complete before the student is admitted to the program and must contain the following:

1. Application to the program and an acceptably written essay (2-3 pages) on "Why I want to be a teacher".
2. Documentation to show a minimum composite score on the ACT of 19 and successful completion of essay test. Candidates who do not reach the minimum ACT score may be admitted on the basis of the established 12.5 minimum score on each of the subtests of the CTBS. Students who present evidence of successful completion of CTBS tests taken at other institutions may be accepted.
3. Four unqualified recommendations from instructors submitted prior to Teacher Education Interview.
4. Documentation to show that the student has passed a Teacher Education Interview which evaluates the student's ability to communicate orally.
5. Documentation to show that the student has completed a minimum of thirty hours with a grade point average of 2.5 or better.
6. Documentation to show that the student has completed English 111 and 112 with a grade of "C" or better in both courses.
7. Documentation to show that the student has completed (with a grade of "C" or better) Introduction to Education and Early Involvement at the time of application.

Students who have failed to pass one competency test, or lack one recommendation, or those who are currently enrolled in but have not yet completed Introduction to Education, Early Involve-

ment, and English 112 may be admitted conditionally to the program if all other requirements ha been met. Students may retake any CTBS subtest(s) but must complete mandatory tutoring at th Learning Lab before re-taking the subtest(s).

Requirements for Admission to Student Teaching

1. Successful validation of writing proficiency.
2. Formal written application by mid-term of the semester preceding the planned student teachin Application forms may be obtained in the Department of Education office.
3. Senior standing is a prerequisite for admission to student teaching.
4. Completion of at least 90 semester hours of credit with at least a 2.5 grade point average in a courses attempted and a 2.5 GPA in all work attempted in the area, major, or minor fields f which certification is sought.
5. Completion of three-fourths of all required professional education courses with an academ standing of at least 2.5.
6. Completion of three-fourths of all coursework for the teaching major or area of concentratio if student teaching is to be done in this specialization; or completion of all the coursework f the teaching minor if student teaching is to be done in the minor area.
7. Approval of the department in which teaching fields are sought.
8. Moral, social, and ethical behavior acceptable in the school community as well as in the con munity at large.
9. A valid and current medical examination which includes a tuberculosis test filed with th Teacher Education Committee.
10. Maintenance of good standing since admission to the Teacher Education Program.
11. Completion of institutional prerequisites with respect to time in residence and pre-studer teaching laboratory experiences.
12. Acceptance by the Teacher Education Committee of the College.
13. No professional education course with a grade below "C" will be accepted.

EARLY ELEMENTARY EDUCATION CURRICULUM

Early Elementary Education (K-4) majors need at least three semester hours each of a Biologic and a Physical Science; each must include a lab. Education majors must have a 2.5 overall grad point average for admittance to the program; a 2.5 overall grade point average, and a 2.5 grad point average in the professional education courses for admittance to Student Teaching. Appropria NTE test(s) must be successfully completed for certification.

I. Preprofessional Courses for Students Preparing to Teach Early Elementary Education (K-4). Preprofessional courses may not be taken by Independent Study.
   - A. Anthropology 221 or Anthropology 251 or Political Science 231 ..... 3 semester hou
   - B. Art 271 — Elementary School Art ..... 3 semester hou
   - C. Computer Information Systems 105 — Introduction to Microcomputer Packages ..... 3 semester hou
   - D. English 355 — Children's and Adolescent Literature ..... 3 semester hou
   - E. Mathematics 203 and 204 — Structure of the Number System ..... 6 semester hou
   - F. Music 373 — Elementary School Music ..... 3 semester hou
   - G. Physical Education 261 — Physical Education in the Elementary School ..... 3 semester hou
   - H. Physical Education Service Course ..... 1 semester hou
   - I. Psychology 111 — Introduction to Psychology ..... 3 semester hou
   - J. Sociology 241 or Geography 241 or History 233 ..... 3 semester hou
   - K. Speech 131 — Fundamentals of Speech ..... 3 semester hou

I. Professional Preparation for Early Elementary Teachers (K-4). These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required and no grade below a "C" is acceptable.

A. Education 241 — Introduction to Education ..... 3 semester hours

B. Education 242 — Early Involvement Internship ..... 3 semester hours

C. Education 341 — Methods of Teaching Mathematics in the Elementary School ..... 3 semester hours
(Prerequisites: Mathematics 203 and 204)

D. Education 342 — Teaching Science in the Elementary Grades ..... 3 semester hours

E. Education 351 — Human Growth and Development ..... 3 semester hours
(Prerequisite: Psychology 111)

F. Education 361 — Reading in the Primary Grades ..... 3 semester hours

G. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hours
(Prerequisite: Education 361)

H. Education 432 — Methods and Materials in the Elementary School ..... 4 semester hours
(Prerequisites: All 200- and 300-level courses listed under Preprofessional Requirements and Professional Preparation)

I. Education 433 — Supervised Student Teaching in the Elementary School ..... 12 semester hours
(6 hours in one grade level and 6 hours in a non-consecutive grade level)

J. Education 441 — Elementary School Social Studies ..... 3 semester hours

K. Education 488 — Professional Interaction in the Schools ..... 3 semester hours

L. Psychology 361 — Psychology of Learning ..... 3 semester hours
(Prerequisite: Psychology 111)

M. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hours
(Prerequisite: Psychology 111)

See Requirements for Admission to Student Teaching

I. Academic Emphasis

The academic emphasis component must include twenty-one semester hours in one of the following six options.

A. ENGLISH/COMMUNICATIONS:

English 111, 112, 212, 221 or 222 or 231 or 232, 355 and 401 or 421; Speech 131

B. FINE ARTS/HUMANITIES:

Art 271, Music 373, Speech 131; two of the following: Art 132, Drama 131 and Music 121; one elective in Religion or Music numbered 300 or above (3 hrs); and Religion 111 or 112 or 231

C. FOREIGN LANGUAGE:

German 111, 112, 211, 212, 331, 495, Independent Study (6 hrs); OR French 111, 112, 211, 212, 331 and 495 Independent Study (6 hrs)

D. MATHEMATICS STUDIES:

Mathematics 132, 203, 204, 211, 301, Computer Information Systems 121, one elective in Mathematics (3 hrs)

E. SCIENCES:
Biology 111, 232 or 233 or 330 or 331, General Science 471, Environmental Studies 350, Physics 105, 111 and 113 or 112 and 114 or Chemistry 111 and 131

F. SOCIAL AND BEHAVIORAL SCIENCES:

Geography 101, Economics 153 or 154, Political Science 101 or 231, History 201 or 202, Anthropology 221 or Sociology 131; and two electives numbered 200 or above in History or Sociology or Psychology (not to include Psychology 361)

MIDDLE GRADES EDUCATION CURRICULUM

Middle Grade Majors (5-8) need at least three hours each of a Biological and a Physical Scienc one must include a lab. Education majors must have a 2.5 overall grade point average for admittan to the program; a 2.5 overall grade point average, and a 2.5 grade point average in the major f admittance to Student Teaching. Appropriate NTE test(s) must be successfully completed for ce tification.

I. Preprofessional Course Requirements for Students Preparing to Teach in the Middle Grades (8). No Preprofessional Course may be taken by Independent Study.

A. Health 270 — Personal and Community Health ..... 3 semester hou

B. Physical Education Service Course ..... 1 semester hou

C. Psychology 111 — Introduction to Psychology ..... 3 semester hou

D. Sociology 241 or Geography 241 or History 233 ..... 3 semester hou

E. Speech 131 — Fundamentals of Speech ..... 3 semester hou

II. Professional Preparation for Middle Grades Teachers (5-8)

These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail optio A grade point average of 2.5 is required, and no grade below a "C" is acceptable.

A. Education 241 — Introduction to Education ..... 3 semester hou

B. Education 242 — Early Involvement Internship ..... 3 semester hou

C. Education 361 — Reading in the Primary Grades ..... 3 semester hou

D. Education 362 — Teaching Reading in the Content Subjects ..... 3 semester hou

(Prerequisite: Education 361)

E. Education 443 — Supervised Student Teaching in the Middle Grades ..... 12 semester hou

F. Education 488 — Professional Interaction in the Schools ..... 3 semester hou

G. Psychology 361 — Psychology of Learning ..... 3 semester hou

Psychology 361 — Psychology of Learning ..... 3 semester hou

(Prerequisite: Psychology 111)

H. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hou

(Prerequisite: Psychology 111)

See Requirements for Admission to Student Teaching

III. Specialization Component

These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail optio A grade point average of 2.5 is required, and no grade below a "C" is acceptable.

A. Education 352 — Human Growth and Development in the Middle Grades ..... 3 semester hou

(Prerequisite: Psychology 111)

B. Education 370 — Curriculum Development for the Middle Grades ..... 3 semester hou

C. Education 436 — Methods and Materials for the Middle Grades ..... 4 semester hou

(Prerequisite: All 200-and 300-level courses listed under Professional Requirements and Professional Preparation)

See Requirements for Admission to Student Teaching

IV. Teaching Fields

(Each student will complete a minimum of 24 semester hours in two fields of study.)

A. ENGLISH AND COMMUNICATION:

English 111, 112, 231 or 232, 355, 401 or 421, 311 or 402, Speech 131, and one English Elective (3 hrs)

B. SCIENCE:

Biology 111, 233 or 321, and 232 or 330; Physics 111 and 113, or 211 and 213; Chemistry 111 and 131; Environmental Studies 110; One of the following sequence of courses:

Physics 112, 114 and a Physics Elective (not to include Physics 105); Physics 212 and 214; Chemistry 112, 132, and a Chemistry Elective; and Physics 105 and Environmental Studies 350

C. SOCIAL STUDIES:

History 111, 112, 201, 202, Political Science 101 or 110, Geography 101, Economics 153 or 154, Sociology 131 or Anthropology 221

D. MATH OPTION I:

Mathematics 132, 203, 204, 211, 241, 301, 331, Computer Information Systems 121

E. MATH OPTION II:

A minor in mathematics plus Mathematics 203 and 204.

SECONDARY EDUCATION CURRICULUM

nion College offers a variety of certification areas for secondary students. Certification for grades 12 includes the following:

A. Areas of Concentration:	English, Mathematics-Physical Science, Science, and Social Studies
B. Teaching Majors:	Basic Business, Biology, Chemistry, English, History, Mathematics, Physical Education, Physics, Secretarial Studies, and Sociology
C. Teaching Minors:	Biology, Chemistry, Drama, English, Health, History, Mathematics, Physics, Psychology, and Sociology

order to be eligible for certification in a Teaching Minor, Secondary Majors must also be eligible r certification in an Area of Concentration or a Teaching Major. See appropriate catalog listings r academic requirements for each of the Areas of Concentration, Teaching Majors and Teaching inors. Secondary Majors (9-12) need at least three hours each of a Biological and a Physical Science; ıe must include a lab. Education majors must have a 2.5 overall grade point average for admittance the program; a 2.5 overall grade point average, and a 2.5 grade point average in the major for lmittance to Student Teaching. Appropriate NTE test(s) must be successfully completed for cer- ication.

Preprofessional Course Requirements for Students Preparing to Teach in the Secondary School (9-12). No Preprofessional Course may be taken by Independent Study.

A. Geography 241 or History 233 or Sociology 241 ..... 3 semester hours
B. Health 270 — Personal and Community Health ..... 3 semester hours
C. Physical Education Service Course ..... 1 semester hour
D. Psychology 111 — Introduction to Psychology ..... 3 semester hours
E. Speech 131 — Fundamentals of Speech ..... 3 semester hours

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Professional Preparation for Secondary Teachers (9-12). These requirements may not be satisfied by CLEP, Independent Study or the Pass/Fail option. A grade point average of 2.5 is required and no grade below a "C" is acceptable.

A. Education 241 — Introduction to Education ..... 3 semester hours
B. Education 242 — Early Involvement Internship ..... 3 semester hours
C. Education 351 — Human Growth and Development ..... 3 semester hours
D. Education 452 — Methods and Materials in the Secondary School ..... 4 semester hours
E. Education 453 — Supervised Student Teaching in the Secondary School ..... 12 semester hours
F. Education 488 — Professional Interaction in the Schools ..... 3 semester hours
G. Psychology 361 — Psychology of Learning ..... 3 semester hours
(*Prerequisite:* Psychology 111)

H. Special Education 365 — Foundations of Education of the Exceptional Child ..... 3 semester hour

(*Prerequisites:* Education 241 and 242)

See Requirements for Admission to Student Teaching.

ASSOCIATE OF APPLIED SCIENCE IN EDUCATION*

	Credit Hour
English 111 and 112 — Freshman Composition	
Natural Science (Environmental Studies 101 recommended)	
Sociology 131 — Introduction to Sociology or	
Sociology 421 — Rural and Urban Sociology	
Psychology 111 — Introduction to Psychology	
Humanities Requirement (speech or theatre recommended)	
Art 271 — Elementary School Art	
Music 373 — Elementary School Music	
Education 241 — Introduction to Education	
Education 351 — Human Growth and Development	
Education 440 — Early Childhood Education	
English 355 — Children's and Adolescent Literature	
Health 270 — Personal and Community Health	
Sociology 371 — Social Institutions	
Health 361 — Principles of Nutrition	
Special Education 365 — Foundations of Education of the Exceptional Child	
Supervised Experience in Early Childhood Education	
Electives — Recommended from Appalachian Semester, Kentucky History, Typing, Recreational Leadership, Arts & Crafts, & Structure of Number Systems	1
	6

ASSOCIATE OF APPLIED SCIENCE FOR GRADUATES OF STATE VOCATIONAL SCHOOLS

Union College offers a program at the associate degree level for students who have earned a diplom from a state vocational school. It is possible to earn up to twenty-four hours of credit toward a associate degree.

	Credit Hour
English 111 — Freshman Composition I	
English 112 — Freshman Composition and Literature	
Psychology 111 — Introduction to Psychology	
Speech 131 — Fundamentals of Speech	
Natural Science Core Requirement	
Social Science Core Requirement	
Humanities Core Requirement	
Credit for Vocational Block	up to 2
Credits toward specific degree goal	2

*Designed for those who work in day care centers and agencies dealing with small children wher teacher certification is not required.

EDUCATION

ucation 241. Introduction to Education. **(F,S)(3)**
Explores the purposes, functions, and aims of education. Students are taken on an exploration of various topics including: teaching as a profession, historical and philosophical foundations of education, the theories and influences of great education thinkers, legal aspects of education, and the funding and structure of school programs.

ucation 242. Early Involvement Internship. **(F,S)(3)**
A practical course in which students are assigned to a local school classroom and meet periodically to discuss and generalize their experiences. Acquiring competence in the following: observation, diagnosis, instructional design and planning, use of media and new technology. To be taken concurrently with Education 241. A $15.00 fee is charged. (46 hours of field experience is required.)

ucation 351. Human Growth and Development. **(F,S)(3)**
This course focuses on basic concepts from human development from conception to death. *Prerequisite:* Psychology 111.

lmission to the Teacher Education Program is a prerequisite for the following courses.

ucation 341. Methods of Teaching Mathematics in Elementary School. **(F,S)(3)**
Modern methods and materials for teaching mathematics in the elementary school. *Prerequisite:* Mathematics 203-204.

ucation 342. Teaching Science in the Elementary Grades. **(F)(3)**
The student will examine science curriculum materials and activities in terms of Piaget's developmental stages. Topics will be identified that could be taught using experimental, inquiry, or discovery methods. Lesson plans will be developed using each of the three methods and activities constructed.

ucation 352. Human Growth and Development in the Middle Grades. **(S)(3)**
This course focuses on the physical, intellectual, personal, social and moral development of children in fourth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media will also be included.

ucation 361. Reading in the Primary Grades. **(F,S)(3)**
Basic principles, techniques, and materials for the teaching of reading in the primary grades; emphasis on Methods and Materials which provide for developmental and differentiates instruction. Includes observation, micro-teaching demonstrations, making of lesson plans, and evaluation of a child's readiness. (10 hours of field experience required.)

ucation 362. Teaching Reading in the Content Subjects. **(F,S)(3)**
Comprehension, study, and reference skills as they pertain to reading in the content subjects; emphasis on language arts and the reading-writing relationship. *Prerequisite:* Education 361 (except for English majors).

ecial Education 365. Foundations of Education of the Exceptional Child. **(F,S)(3)**
Etiology and assessment of exceptional learning conditions; characteristics of exceptionalities; special education intervention. *Prerequisite:* Psychology 111. (10 hours field experience).

ucation 370. Curriculum Development for the Middle Grades. **(F)(3)**
This course involves tracing the history of curriculum development in the United States, as well as identifying trends in the curriculum of the middle school. It will include curriculum design, middle school terminology and techniques, social and cultural forces, political forces, programs, organization and evaluation.

ucation 401. Introduction to Counseling and Guidance. **(Sum)(3)**
Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges, and related service-oriented agencies. Essential counseling and guidance services, policies, practices and procedures. *Prerequisite:* Psychology 111.

ucation 432. Methods and Materials in the Elementary School. **(F,S)(4)**
Emphasis on language arts and methods in the early elementary classroom. *Prerequisites:* Education 241, 242, 341, 351, 361, and 362; Psychology 361; ninety semester hours of college credit; quality grade point average of 2.5 in education and at Union College; one semester of residence. No late registration. (15 hours of field experience required.)

ucation 433. Supervised Student Teaching in the Elementary School. **(F,S)(12)**
Laboratory experiences in working with children, teachers, and others in school and community. Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation and meals paid by the students. Application to be made one semester in advance. *Prerequisites:* See Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 436. Methods and Materials for the Middle Grades. **(F)**
This course focuses on instructional strategies and materials needed for releasing the potent for the middle grade student leading from concrete to abstract learning. The course will inclu curriculum concepts and designs, innovative activities using hands-on-experiences, techniqu of writing lesson plans, the development of a unit of work, materials for journal writing, cla demonstrations and evaluation. (15 hours of field experience required.)

Education 440. Early Childhood Education. **(Sum)**
Survey of the physical, emotional, mental, and psychological development of the child under and the role of the kindergarten teachers in working with such a child.

Education 441. Elementary School Social Studies. **(F,S)**
Methods and materials for the teaching of elementary school social studies, including kindergart through eighth grade curricula. The philosophies, terminology, and evaluation of methods a materials will be included.

Education 443. Supervised Student Teaching in the Middle Grades. **(F,S)(**
Laboratory experiences in working with children, teachers, and others in school and communit Supervision by an experienced classroom teacher for a minimum of 12 weeks. Transportation a meals paid by the students. Application to be made one semester in advance. *Prerequisites:* S Requirements for Admission to Student Teaching. A supervisory fee of $100 is charged.

Education 452. Methods and Materials in the Secondary School. **(F,S)**
Current teaching methods, materials, and innovations in the secondary school with direct observations. *Prerequisites:* All 200- and 300-level courses listed under Pre-professional Cour Requirements and Professional Preparation. (25 hours field experience.)

Education 453. Supervised Student Teaching in the Secondary School. **(F,S)(**
Under the direction of an experienced teacher, the student directs the usual teaching activiti in the classroom for a minimum of 12 weeks. Application should be made one full semester advance of the time the teaching is to be done. *Prerequisite:* See Requirements for Admission Student Teaching. A supervisory fee of $100 is charged.

Education 468. Educational Media. **(Sum)**
Practice in operating educational media and construction of classroom materials. Emphasis educational television use in the classroom.

Education 488. Professional Interaction in the Schools. **(F,S)**
Discusses the role of the professional teacher including professional values, school communi relations, school finance and programs of the school, legal aspects and human interaction in t schools from a variety of perspectives and theories. Addresses the role of classroom manageme in the learning process.

Education 495. Independent Study. **(F,S)**
Open only to advanced students in the field of Education who wish to do intensive reading ir specific interest area. *Prerequisite:* Twelve semester hours of Education and permission of the He of the Department.

III. DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

Larry Inkster, *Department Head*
Health — Physical Education

HEALTH

Students preparing to teach in an elementary or secondary school in Kentucky are required to mplete the following courses: for an elementary certificate, Physical Education 261; for a secondary rtificate, Health 270.

Requirements for a Minor in Health Education: Twenty-one semester hours which must include ealth 270, 311, and 340.

ealth 131. First Aid and Safety Education. **(S)(3)**
Designed to aid the student in developing an understanding of the basic principles of accident prevention as applicable to the home, the highway, and the school. First aid measures for various injuries and illnesses are discussed and practiced.

ealth 270. Personal and Community Health. **(F)(3)**
The relationship of bodily functions to personal health and grooming and to community and natural health.

ealth 311. Health Education —K-12. **(S)(3)**
The experiences, activities, and instruction of elementary and secondary students that lead to intelligent self-direction of health behavior.

ealth 340. Physiology and Anatomy. **(F)(3)**
A study of cellular construction, tissues, organs, and systems of the human body. A study of the functions of these organs and systems as it deals with health and physical education discipline.

ealth 361. Principles of Nutrition. **(F)(3)**
A study of the composition, nutritive value, and utilization of food.

ealth 421. Community Health. **(F)(3)**
The social and cultural factors, the physical environment, and the health agencies and services as they relate to the health of the community.

ealth 451. School and Community Health Workshop. **(Sum)(3)**
Reveals the relationship needed between the school and community to promote the total health of the population. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsored agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio-visual aids.

ealth 461. Nutrition for Special Needs. **(S)(3)**
A course focusing on the nutrition needs through the life cycle, energy metabolism, and therapeutic applications of nutrition.

ealth 475. Critical Areas in Health. **(F,Sum)(3)**
Specific health problems confronting society today with particular reference to secondary age students.

ealth 485. Field Experiences in Health. **(F,Sum)(3-6)**
A directed field experience in some phase of health, with consideration given to both the needs and interests of the student. Opportunities will be available for practical experiences in the school situation, official health agencies, and voluntary agencies.

ealth 495. Independent Study. **(F,Sum)(1-3)**
Independent study for advanced students only.

PHYSICAL EDUCATION

equirements for a Major in Physical Education: Students choosing to pursue a K-12 teaching rtificate must take thirty-six semester hours which must include Physical Education 351, 361, 420, 21, Health 131 and 340 and four service courses. Physical Education 461 is required but will not unt toward the required 36 hour major. For teaching certification the 21 hour health minor must so be completed. Only two coaching courses may be counted toward the 36 hour major.

A maximum of eight semester hours of service courses may be credited toward graduation. Physic education majors must take four service courses. This is the maximum that can be applied to major, but others may be taken as electives. The following service courses also meet the elementa and secondary requirement for physical education.

Physical Education 111. Beginning Swimming (Non-swimmers only) (F,S,Sum)(

Physical Education 112. Intermediate Swimming. (F)(

Physical Education 113. Senior Lifesaving. (F)(
Prerequisite: Intermediate swimming or permission of the instructor.

Physical Education 121. Team Sports. (F)(

Physical Education 122. Volleyball. (F,S)(

Physical Education 132. Golf. (F,S,Sum)(

Physical Education 133. Tennis and Badminton. (F,S,Sum)(

Physical Education 134. Personal Fitness and Aerobic Activities. (F,S)(

Physical Education 135. Beginning Tumbling. (Even years only.) (S)(

Physical Education 136. Weight Training. (F)(

Professional Courses

Physical Education 251. Prevention and Care of Athletic Injuries. (F)(
Practical study and evaluation of various methods of conditioning. Emphasis on preventive an protective measures, practical study involving basic principles of massage, bandaging, strappin and first aid. Analysis of the instruction and operation of the training room.

Physical Education 261. Physical Education in the Elementary School. (F)(
The role of the classroom teacher in physical education. Emphasis is placed on the applicatio of game, movements, exploration, rhythms, and self testing. Included are screening procedure for the assessment of motor development as well as the importance of health and nutrition needs for the elementary school child.

Physical Education 271. Sports Officiating. (F)(
Rules and officiating techniques in football, basketball, baseball, and track. (Odd years only.)

Physical Education 301. Theories of Coaching Football. (F)(
The practical study of the game of football, as it applies to the coach and player. A study of th fundamental skills, principles, and concepts.

Physical Education 302. Coaching Men's and Women's Basketball. (F)(
(Even years only.)

Physical Education 304. Coaching Baseball and Softball. (F)(
(Even years only.)

Physical Education 305. Coaching Track and Field for Men and Women. (S)(
(Odd years only.)

Physical Education 321. Recreational Leadership. (S)(
Leadership techniques in music, social games, arts and crafts, dramatics, camping, nature, an sports. Designed to aid students in enriching their own leisure time and to prepare for leadershi in teaching, full-time Christian service, and social service.

Physical Education 351. Tests and Measurements in Health and Physical Education. (S)(
Evaluating health and physical education by the construction and administering of tests. En phasizes reliability, objectivity, validity of tests, and grading system.

Physical Education 361. Organization and Administration of Physical Education and Athletics. (S)(
Administration of physical education and athletic programs in schools, with special emphasis o philosophy and leadership styles. Includes budget and finance, office management, curriculu development, facilities, legal factors, and public relations.

Physical Education 420. Physical Education for the Exceptional Child. (F)(
Health conditions which require the physical education program to be adapted to meet the nee of individuals with handicapping conditions will be studied. Additional emphasis on nationa state, and local agencies designed to help meet the needs of these individuals. Some work wit a local, exceptional population may be required.

ıysical Education 421. Kinesiology. **(S)(3)**
An analysis of human motion and its relation to athletic and gymnastic activities; practical application of these principles.

ıysical Education 461. Physical Education in the Secondary School. **(F)(3)**
Topical areas such as philosophy, teacher certification, competencies, and professional activities will be covered. Curriculum construction, instructional methods, class management and techniques for teaching specific activities will be considered as they relate to the secondary level.

ıysical Education 495. Independent Study. **(F,S,Sum)(3)**
Independent work for advanced students only.

MILITARY SCIENCE PROGRAM (Army ROTC)

The mission of Union College's Army ROTC Department is to commission the future officer adership of the United States Army. This is accomplished by providing a means for college students pursue an Army commission as a second lieutenant while achieving their academic goals in their osen field of study. Students may enroll in the first two years (MLSC 100-200 level courses) of rmy ROTC without obligation to the military. These students gain an appreciation of the roles d missions of our national defense structure as well as military history. Students whose future nployment goals may require leadership or managerial skills, those with an interest in our national efense structure, or those who wish to explore the benefits of a career in the U.S. Army Reserves, ational Guard, or regular service are encouraged to take the introductory courses. Students who esire to receive a commission must contract to complete the advanced courses (MLSC 300-400 level urses) and ROTC Advanced Camp before commissioning.

A two-hour leadership lab is held each week and is required for all registered MLSC 301, 302, 01, and 402 students. A 45 minute physical training lab is held three times weekly for all MLSC 00 and 400 level courses. Uniforms are issued for leadership lab participants. A $100.00 monthly lowance is paid to advanced course students participating in MLSC 300 and 400 level courses.

A complete military science program is four years in length and is designed to supplement and mplement any regular baccalaureate degree program. Successful completion of the advanced ilitary science program qualifies a student for commission as a second lieutenant in one of the 16 ccession branches in the U.S. Army. Entrance into other non-accession branches may occur after dditional schooling.

Students desiring to enter the U.S. Army on active duty after completing ROTC must request it rough the Professor of Military Science. Competition for active duty is keen. Students who desire be commissioned in the Army Reserves or National Guard may sign a guaranteed reserve forces uty contract.

DVANCED PLACEMENT CREDIT

U.S. military veterans, Reserve, or National Guard personnel who have completed ninety days tive duty for training, students with three or more years of junior ROTC, and academic sophomores ho complete the six-week Army ROTC Basic at Fort Knox, Kentucky may qualify for entry into e program at the advanced level. Interested students must be pursuing a four-year degree, have minimum of four full semesters of undergraduate degree work remaining at time of entry, and eet all other requisites for commissioned service. A special program for graduate students is also vailable.

INOR IN MILITARY SCIENCE

A student may minor in military science by completing seventeen hours of advanced military ience (MLSC 301, 302, 401, 402, and 487) and six hours of the ROTC Basic courses.

CHOLARSHIPS

Army ROTC scholarships are available to all students enrolled at Union College. These scholarips provide full payment of tuition, laboratory fees, an allowance for books and a nontaxable ubsistence allowance of $100.00 per month for ten months each year the scholarship is in force. cholarships are awarded on a competitive basis for two and three years. Initial selection is made n campus by a board of Army officers. Final selection is made at Fort Knox, Kentucky.

High school students are eligible for four-year ROTC scholarships. Applicants interested in ob taining a four-year scholarship will be evaluated on the basis of the whole person concept. Students may qualify for a scholarship if:

a. They are a citizen of the United States. Non-citizens are ineligible for scholarship benefits.

b. They will be at least 17 years of age by October 1, of the year they enter college.

c. They have no moral obligation or personal conviction that will prevent them from:
   1. Supporting and defending the Constitution of the United States against all enemies-foreign and domestic.
   2. Conscientiously bearing arms.

d. They satisfactorily explain any record of arrest and/or civil conviction.

e. They receive at least a minimum SAT score of 850 and/or an ACT composite score of 17.

For additional information, including questions on ROTC scholarships and other assistance, see military science officers on campus or the division chair of Applied Sciences.

MILITARY SCIENCE

Military Science 101. Group Dynamics of Leadership. **(F)(2)**
Development of leadership and problem solving abilities; examination of leadership style and counseling techniques; comparison of civilian and military leadership; and analysis of the Constitutional historical basis for the U.S. Army.

Military Science 102. Dynamics of Leadership and Operational Teamwork. **(S)(2)**
A study of theories, principles, techniques and fundamentals of map reading and their application. Classes are systematically arranged to promote student participation in group leadership development and problem solving techniques.

Military Science 202. American Military History. **(S)(3)**
Examines U.S. Military history from pre-revolutionary times to post-Vietnam; defines the principles of war; discusses political-military interactions; develops leadership through group contributions; case studies which apply the principles of war to historical periods. This course counts toward the history major.

Military Science 203. Intermediate Leadership and Management. **(F)(2)**
Provides students continued development of basic military skills through practical leadership experiences in performing emergency medical treatment, drill and ceremonies, physical training and rifle marksmanship. Principles of leadership and management are presented in classroom discussion.

Military Science 287. Military Science Practicum (Basic). **(on demand)(2,5,6)**
Introduces Military Science in a comprehensive summer field course designed to be taken in lieu of MLSC 101, 102, 202, or 203. This course emphasizes practical field application and leadership development.

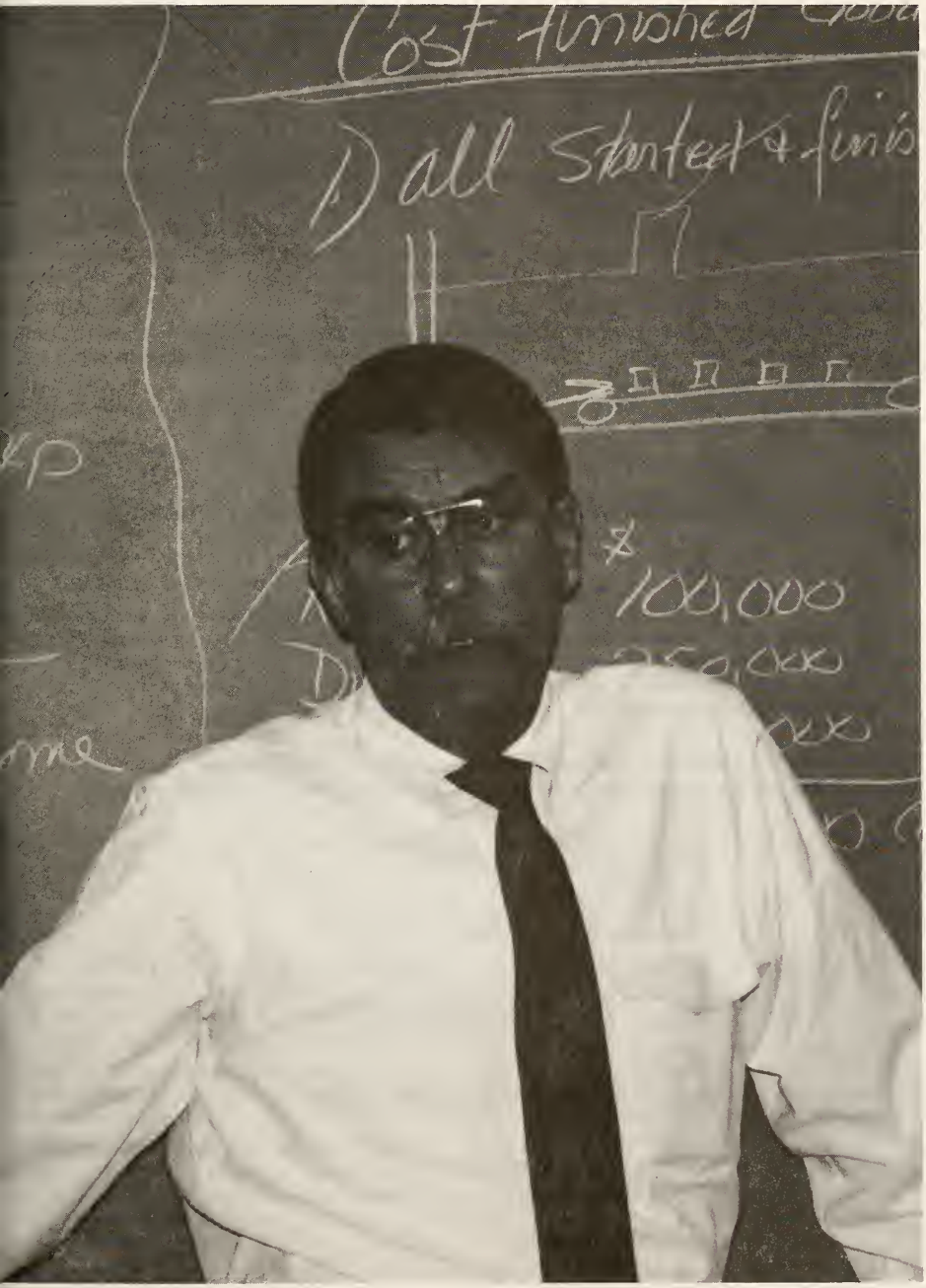
Military Science 301. Advanced Leadership and Management I. **(F)(3)**
Introduction to advanced leadership and management, emphasizing the branches of the Army, communication systems, and equipment. Defines principles of leadership and develops leadership through practical application as a leader in field training and physical conditioning.

Military Science 302. Advanced Leadership and Management II. **(S)(3)**
Develops leadership and management ability and military skills in military communications, weapons, and tactics. Develops leadership and command presence through student presentations and practical application as a leader in field training and physical conditioning.

Military Science 401. Fundamentals and Dynamics of the Military Team I. **(F)(3)**
Develop staff officer skills in leadership and management through decision making and problem solving techniques through military planning, administrative and logistical management and detailed training management.

Military Science 402. Fundamentals and Dynamics of the Military Team II. **(S)(2)**
Discusses the impact of world affairs on U.S. Armed Forces; defines overall professional and ethical responsibilities of military officers; development of military officers; development of military management techniques; establishes a basic understanding of military justice and the Geneva convention.

litary Science 487. Military Science Practicum (Advanced). (on demand)(6)
Develops leadership through intensive six-week field course of rotating leader/command expe-rience in problem analysis, decision making, and troop leading, while providing in-depth coverage of technical and tactical subjects.



DIVISION OF HUMANITIES

Dianne R. Ferris, *Chairperson*
Department of English and Foreign Languages
Department of Music and Fine Arts
Department of Religion and Philosophy

HUMANITIES

Humanities 101, 102, 103, 104. Chapel. **(F,S)(**
Participation in chapel programs is designed to aid the student in achieving the breadth ar flexibility of mind necessary for full participation in a complex culture. Four major themes a addressed: (a) God and the relations between God, the universe, and man; (b) significant ethic questions and moral issues; (c) the ceremony and liturgy of the Church; (d) significant art ar music in the Christian tradition. May be repeated for a maximum of four credits in a four-ye course of study.

Humanities 202. Introduction to Film. **(on demand)(**
Film is studied as an art form concerned with the human values of mankind. Appreciation film and its basic elements and techniques is stressed.

Humanities 204. History of the Motion Picture. **(on demand)(**
A study of film's development as a distinctive medium of communication and as an art form The course offers explorations of landmark films from the silent period to contemporary times

Humanities 320. Medieval Civilization. **(F)(**
An introduction to the history and civilization of Western Europe from 800 to 1450. (Odd yea only.)

I. DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

Andelys Wood, *Department Head*
English — French — German — Spanish
Journalism (Area of Emphasis)

BACHELOR OF ARTS DEGREE IN ENGLISH

Requirements for a Minor in English

An additional elective English course and Education 362 are required for those seeking teach certification.

		Semester Hou
ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 231 or 232	Survey of American Literature	3
ENGL 311	Intermediate Composition	3
A genre course, chosen from the following		3
ENGL 351	The English Novel: Defoe to Brontes	
ENGL 352	The English Novel: ca. 1850 to D.H. Lawrence	
ENGL 451	Modern Poetry	
ENGL 452	American Novel	
ENGL 372	Shakespeare	3
A language course, chosen from the following		3
ENGL 401	Modern Grammar	
ENGL 421	History of the English Language	

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Requirements for a Major in English
In addition to all courses required for the minor, students take one of the following courses:

A period course, chosen from the following		3
ENGL 320	Medieval English Literature	
ENGL 321	English Renaissance Literature	
ENGL 322	Restoration and Eighteen Century Literature	
ENGL 323	Nineteenth Century Literature	
ENGL 472	Seminar in Literature	3
An English elective		3
		30

Requirements for a Major in English with a Journalism Emphasis
Students take twenty-four hours of English courses (listed below) and twenty-three hours of Journalism courses which must include JOUR 200, 225, 227 and four practicums. Practicums may be fulfilled by working either on the "Union Express" (JOUR 180 to 480) or on the **Stespean** (JOUR 190 to 490) or by choosing a combination of the two practicum sets. Four additional "Union Express" practicums and four additional **Stespean** practicums are available to students during their junior and senior years. Only four hours of practicum may be included in the twenty-three hour Journalism course requirement.

		Semester Hours
ENGL 221	Survey of English Literature I	3
ENGL 222	Survey of English Literature II	3
ENGL 231	Survey of American Literature II	3
ENGL 232	Survey of American Literature II	3
ENGL 311	Intermediate Composition	3
ENGL 401 or	Modern Grammar	
ENGL 421 or	History of the English Language	3
ENGL 402	Advanced Composition	
or	300-400 level literature course	3
	Elective 300-400 level literature course	3
		24

Requirements for an Area in English
Forty-eight semester hours (thirty of which must satisfy the requirements for a English major), including all courses required for the minor, English 402 or 419, Speech 131 and additional courses in drama, journalism, and speech.

Other Requirements
Students preparing to teach high school English are required to take Education 362 and should elect the English major, minor, or area. They should consult the Education Department for full information about course requirements.

All students majoring or minoring in English are advised to take at least six hours of a foreign language.

ENGLISH

English 090-091. English as a Second Language. **(on demand)(0)**
A preliminary, non-credit course for the foreign student seeking to acquire sufficient competence in listening to and speaking the English language to be able to communicate effectively in the classroom and in the college community.

English 110. Developmental English. **(F,S)(3)**
Training in college-level language skills. Designed to prepare students in English 111 and other introductory courses.

English 111. Freshman Composition I. **(F,S)(3)**
Writing papers from a variety of rhetorical approaches and stressing interdisciplinary connections. Reading of short prose pieces as models and for discussion. Must precede English 112.

English 112. Freshman Composition and Literature. **(F,S)(**
Literary works and forms from the ancient world to the Middle Ages provide the basis for long papers emphasizing critical writing and documentation.

A general prerequisite for 200-level courses is the successful completion of English 111 and 1 with a grade of "C" or better.

English 212. Western Literature. **(F,S)(**
Survey of Western Literature from early Christian era through 17th Century. *Prerequisite:* Englis 112.

English 221, 222. Survey of English Literature. **(F,S)(**
The first half includes the Middle Ages, the Renaissance, the Restoration and Eighteenth Centur and the second includes the Romantic and Victorian periods, and the Twentieth Century. Eith course may be taken separately and not necessarily in sequence.

English 231, 232. Survey of American Literature. **(F,S)(**
The first half (1620-1865) begins with the Puritan writers and ends with Walt Whitman, and th second (1865-1950) begins with Emily Dickinson and ends with William Faulkner. Either cours may be taken separately and not necessarily in sequence.

English 311. Intermediate Composition. **(S)(**
A writing course designed to reinforce and expand expository writing skills with an emphasis o writing as process.

A general prerequisite for literature courses numbered 300 and above is the successful completio of any one of English 212, 221, 222, 231 or 232. Students are urged to consult with members the department before enrolling for advanced work.

English 320. Medieval English Literature. **(F)(**
A study of notable works from selected genres of tenth to fifteenth-century literature with pa ticular attention to Arthurian material, Chaucer, the Lyric, and drama. (Odd years only.)

English 321. English Renaissance Literature. **(S)(**
A study of poetry, prose, and non-Shakespearean drama, beginning in the early sixteenth centu and ending with Milton. (Odd years only.)

English 322. Restoration and Eighteen Century Literature. **(F)(**
Prose and poetry of the neo-classical age, beginning with Dryden and his contemporaries an extending through Samuel Johnson. (Even years only.)

English 323. Nineteenth Century Literature. **(S)(**
Major poetry and nonfiction prose of the nineteenth century, with focus on the rise and tran formation of Romanticism in England from Blake and Wordsworth to Tennyson and Browning (Even years only).

English 351, 352. The English Novel. **(F,S)(**
Historical study of the growth of the novel as a form. The first course includes novels from Def through the Brontes; the second begins ca. 1850 and goes through D.H. Lawrence. Either cours may be taken separately and not necessarily in sequence. (Even years only.)

English 355. Children's and Adolescent Literature. **(F)(**
A course that surveys a wide variety of fiction and poetry enjoyed by children and adolescen and suggests ways of evaluating these works as literature.

English 372. Shakespeare. **(S)(**
A critical approach to selected histories, comedies, and tragedies, focusing on their timeles human, literary and dramatic qualities.

A general prerequisite for 400-level courses is junior standing.

English 401. Modern Grammar. **(F)(**
An intensive review of traditional grammar in combination with selected material from structurali views of linguistic analysis and theories of transformational grammar. Attention will be paid t the practical application of each. (Even years only.)

English 402. Advanced Composition. **(on demand)(**
For the student who wishes to become a more competent writer. Research papers, factual na ratives, argumentation, and "creative" writing are assigned according to the needs and aptitud of the student.

ıglish 419. Composition for Teachers. **(on demand)(3)**
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself.

ıglish 421. History of the English Language. **(F)(3)**
A study of the origins and development of the English language from Anglo-Saxon times to the present. (Odd years only.)

ıglish 451. Modern Poetry. **(F)(3)**
American and British poetry, with consideration of ways of reading, criticizing, and writing verse in this century. (Odd years only.)

ıglish 452. American Novel. **(S)(3)**
A critical and historical study of the development of the American novel and its form from its beginning to William Faulkner. (Odd years only.)

ıglish 472. Seminar in Literature. **(S)(3)**
Intensive study of a major writer, group, or literary topic. May be repeated once for credit.

ıglish 495. Independent Study. **(F,S)(3)**
Intensive individual work under supervision, in some phase of English, American, or world literature linguistics, or composition not otherwise covered in the curriculum. *Prerequisites:* Twenty-four hours of English above English 111, 112, and permission of the head of the department. May be repeated for credit.

JOURNALISM

urnalism 180, 280, 380, 480. Journalism Practicum. **(F,S)(1)**
Actual operation of campus newspaper provides experience in reporting, photojournalism, and use of typesetting equipment. 380 and 480 include management. To be taken in sequence.

urnalism 190, 290, 390, 490. Journalism Practicum. **(F,S)(1)**
Actual operation of campus yearbook provides experience in the basics of photojournalism, design, typesetting, and layout. 390 and 490 include management. To be taken in sequence.

urnalism 200. Introduction to Communication. **(S)(3)**
Open to all students, this course examines communication theory and its applications in newspapers, magazines and television, the history of journalism, career opportunities and needed skills within the news industry. *Prerequisites:* English 111 and typing proficiency of 20 w.p.m.

urnalism 225. Newswriting (Formerly English 225). **(F)(3)**
Basic course in reporting the news. Focus on information gathering, news story content formats, working under deadlines, and use of Associated Press style. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m. (Odd years only.)

urnalism 226. Feature Writing. **(S)(3)**
A basic course for journalist. Introduces feature story formats, interview techniques, staff and freelance markets in newspapers and magazines. *Prerequisites:* English 112 and typing proficiency of 20 w.p.m. (Odd years only.)

urnalism 227. Editing, Layout (Formerly English 227). **(F)(3)**
Basic instruction in copy editing, page layout and design, headline writing, photo handling, and outline writing. (Odd years only.)

urnalism 233. Photojournalism. **(F)(3)**
Reporting the news with a camera. Stresses composing and shooting with a 35mm camera and includes darkroom instruction and experience. Lab fee: $25. (Even years only.)

urnalism 331. Media Law and Ethics. **(F)(3)**
Examines the segment of U.S. laws which governs freedom of the press (First amendment, libel, invasion of privacy, pornography/obscenity). Reviews press ethicists and applies their theories to print and broadcast media. (Even years only.)

urnalism 332. Editorial and Public Relations Writing. **(on demand)(3)**
The specialized area of opinion journalism is the focus of this course. Introduces the six categories of editorials, advocacy journalism, editorial cartoons, press releases, and writing for organizations. *Prerequisite:* typing proficiency of 20 w.p.m.

Journalism 333. Sports Writing. **(on demand)(**
Focuses on news and feature coverage of sports events, personalities and trends. Examine techniques for interviewing, analyzing statistics, and acquiring sports information. *Prerequisit* typing proficiency of 20 w.p.m.

Journalism 340. Advanced Newswriting. **(S)(**
Gathering and writing news in depth on current issues and concerns. Stresses awareness of loca state, national, and world events, and techniques of investigative reporting. *Prerequisite:* Jou nalism 225. (Odd years only.)

Journalism 345. Print Design, Production, Typography I. **(F)(**
Creative and practical aspects of designing and preparing materials in print. Experience in us of photographic print shop equipment. Lab fee: $20. *Prerequisite:* typing proficiency of 20 w.p.m (Even years only.)

Journalism 346. Print Design, Production, Typography II. **(S)(**
In-depth continuation of Journalism 345. Lab fee: $20. *Prerequisite:* Journalism 345. (Even year only.)

Journalism 450. Seminar in Journalism. **(S)(**
Intensive study of journalism issues, including, but not limited to, press freedom, copyright libel, slander, fair comment, evolution of print media and its current concerns. *Prerequisites:* twelv hours of journalism, Junior or Senior status and recommendations of course instructor. (Ever years only.)

Journalism 485. Internship. **(**
Professional experience with an area organization in writing, photography, editing, or design *Prerequisites:* Fourteen hours of journalism, Junior or Senior status and recommendation of jour nalism instructor.

Journalism 486, 487, 488, 489. Journalism Practicum. **(F,S)(1**
Position of high level responsibility on campus newspaper provides continued experience i editing, layout, and newspaper management. *Prerequisite:* Journalism 480.

Journalism 492, 493, 496, 497. Journalism Practicum. **(F,S)(1**
Position of high level responsibility on campus yearbook provides continued experience in pho tojournalism, layout, and yearbook management. *Prerequisite:* Journalism 490.

FRENCH

The program offers the opportunity to gain understanding of France and its culture as well as basic knowledge of the French language. Students offering more than one entrance unit in Frenc and students transferring from other colleges should consult with the instructor before registering for any course in French.

French 111. Elementary French I. **(F)(3**
Basic French grammar; simple reading, practice in the oral and written language.

French 112. Elementary French II. **(S)(3**
Continuation of French 111. *Prerequisite:* French 111 or equivalent.

French 211. Intermediate French I. **(F)(3**
More detailed study of grammatical structure; study of important literary works; individual col lateral reading tailored to the student's interests. *Prerequisite:* French 112 or equivalent.

French 212. Intermediate French II. **(S)(3**
Continuation of French 211. *Prerequisite:* French 211 or equivalent.

French 331. French Civilization. **(S)(3**
The economic, social, and cultural development of France, French contributions to world civili zation. May not count toward fulfillment of the language requirement. **No knowledge of Frenc required.** (Even years only.)

French 495. Independent Study. **(F,S)(3**
Intensive independent study of some aspect of French literature or civilization. May be repeate for credit.

GERMAN

The program offers the opportunity to gain some understanding of Germany and its culture as well as a basic knowledge of the German language. Students offering more than one entrance unit in German and students transferring from other colleges should consult with the instructor before registering for any course in German.

German 111. Elementary German I. **(F)(3)**
Basic German grammar; simple reading; practice in the oral and written language.

German 112. Elementary German II. **(S)(3)**
Continuation of German 111. *Prerequisite:* German 111 or equivalent.

German 211. Intermediate German I. **(F)(3)**
More detailed study of grammatical structure, reading of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* German 112 or equivalent.

German 212. Intermediate German II. **(S)(3)**
Continuation of German 211. *Prerequisite:* German 211 or equivalent.

German 331. German Civilization. **(S)(3)**
The economic, social, and cultural development of Germany; German contributions to world civilization. May not count as part of the language requirements. **No knowledge of German required.** (Odd years only.)

German 495. Independent Study. **(F,S)(3)**
Intensive independent study of some aspect of German literature or civilization. May be repeated for credit.

SPANISH

The program offers the opportunity to gain some understanding of Spain and its culture as well as a basic knowledge of the Spanish language. Students offering more than one entrance unit in Spanish and students transferring from other colleges should consult with the instructor before registering for any course in Spanish.

Spanish 111. Elementary Spanish I. **(F)(3)**
Basic Spanish grammar; simple reading; practice in the oral and written language; cultural background.

Spanish 112. Elementary Spanish II. **(S)(3)**
Continuation of Spanish 111. *Prerequisite:* Spanish 111 or equivalent.

Spanish 211. Intermediate Spanish I. **(F)(3)**
More detailed study of grammatical structure; study of important literary works; individual collateral reading tailored to the student's interests. *Prerequisite:* Spanish 112 or equivalent. (Even years only.)

Spanish 212. Intermediate Spanish II. **(S)(3)**
Continuation of Spanish 211. *Prerequisite:* Spanish 211 or equivalent. (Even years only.)

II. DEPARTMENT OF MUSIC AND FINE ARTS

Betty S. Stroud, *Department Head*
Art — Drama and Speech — Music

ART

Union College course offerings in the field of art provide service courses for several curricula and opportunities for exploration and growth in artistic self-expression.

Art 132. Introduction to Art. **(S)(3)**
An introduction to Art outlining basic approaches, principles, techniques and media as well as styles of expression, both past and present.

Art 271. Elementary School Art. **(F)**
A studio course involving many kinds of art projects in media suitable to and practicable i elementary grades.

Art 273. Art History. **(on demand)**
The intensive study of major movements, personalities, and styles of architecture, painting a sculpture of world art.

Art 495. Independent Study. **(F,S)**
Independent study or research on approved topics. May be repeated for credit.

DRAMA AND SPEECH

Requirements for a Major: Union College offers a major with two options. Students may maj in either Drama or Drama/Speech. Other than the Speech courses required for the second optio there is very little difference between the two.

Core courses required for the major include Drama 251, 331, 332, 352, 365, 366, 451 and 461; total of twenty-four semester hours.

Students electing the Drama/Speech option are also required to take twelve hours in approv courses in Speech, including Speech 131, and three hours of upper division dramatic literatu courses.

Students electing the Drama option are also required to take either six hours of upper divisic dramatic literature courses or a combination of three levels of Theatre Practicum and an upp division dramatic literature course.

Requirements for a Minor in Drama and Speech: Twenty-one semester hours, including Dram 251, 331 or 332, 365, 366 and Speech 131, 231. Cannot be used for a teaching minor certificate.

Requirements for a Minor in Drama: Twenty-one semester hours in Drama, including Dram 251, 331 or 332, 365, 366, and 451. Can be used for teacher certification. An additional six hou may be upper division dramatic literature courses or a combination of upper division dramat literature courses and three levels of Theatre Practicum.

Drama 131. Introduction to the Theatre. **(F)(**
A broad overview of the history of theatre and drama as well as an introductory study of actin designing, and directing.

Drama 180, 280, 380, 480. Theatre Practicum. **(F,S)(**
Actual practical experience in Union College Theatre production in either performance or technic areas.

Drama 251. Fundamentals of Acting. **(S)(**
An introduction to the Stanislavsky system of acting involving exercises, analysis, and perform ance of short scenes.

Drama 321. European Drama Since 1945. **(on demand)(**
A study of representative plays in translation by modern writers from Germany, France, Italy and Poland.

Drama 331. Scene and Light Design. **(F)(**
Fundamentals of set and light design for the stage. Practical study of set construction and lightin equipment as well as designing the set and lights for a production. *Prerequisite:* Drama 131 o permission of instructor. (Odd years only.)

Drama 332. Costume and Make-up Design. **(S)(**
Fundamentals of costume design for the stage. Practical study of costume construction and ap plication of stage make-up as well as designing costumes for a period play. *Prerequisite:* Dram 131 or permission of instructor. (Odd years only.)

Drama 352. Advanced Acting. **(on demand)(**
Analysis and performance of scenes from contemporary drama and Shakespeare. *Prerequisite* Drama 251 or permission of instructor.

Drama 365. History of the Theatre to 1642. **(F)(**
A study of the theatre, drama, and criticism from the Greeks to 1642. *Prerequisite:* Drama 131 o permission of instructor. (Even years only.)

Drama 366. History of the Theatre from 1642. **(S)(3)**
A study of the theatre, drama, and criticism from 1642 to the present. *Prerequisite:* Drama 131 or permission of instructor. (Even years only.)

Drama 451. Directing. **(on demand)(3)**
Study of directing techniques, and script analysis culminating in the staging of a one-act play. *Prerequisite:* Permission of instructor.

Drama 461. Senior Project in Theatre/Drama. **(on demand)(3)**
A supervised project involving advanced work in some area of Theatre/Drama: criticism, history, directing, designing or performing. Open only to students majoring in Drama.

Drama 495. Independent Study in Drama. **(on demand)(3)**
Independent study or research on approved topics.

Speech 131. Fundamentals of Speech. **(F,S)(3)**
Study and practice of gathering and organizing material for informative and persuasive speeches.

Speech 231. Oral Interpretation of Literature. **(S)(3)**
Analysis and performance of narrative prose, poetry, and drama.

Speech 341. Debate. **(on demand)(3)**
The study and practice of formal debate. Case preparation and methods of organization using the national college debate topic for the year. Designed to help students think more clearly, organize their ideas more effectively, and present their conclusions more persuasively.

Speech 342. Persuasion. **(on demand)(3)**
This course serves to acquaint students with the theory and practice of persuasive techniques. Students will develop their own powers of persuasion and learn to recognize the rhetorical techniques employed by others.

MUSIC

Objectives:

1. To provide the required curricula for the Bachelor of Arts and the Bachelor of Science in Music, the Bachelor of Music in Church Music, the Bachelor of Music in Music Education.
2. To offer group and private instruction which provides for the development of individual musicianship of the music major, music minor, and general college student.
3. To offer opportunities for participation in music ensembles and music theatre for the music majors, music minors, and general college students.
4. To provide recitals, concerts, and music theatre for the cultural enrichment of the campus and community.

Music Library: The music library, located in the Fine Arts Building, contains records, scores, listening and computer assisted music instruction facilities.

DEGREES

Students majoring in music at Union College may pursue the following degree programs:

Bachelor of Music in Music Education
Bachelor of Music in Church Music
Bachelor of Arts in Music
Bachelor of Science in Music
Bachelor of Science in Music and Business

Bachelor of Music in Music Education (K-12 Certificate)

Candidates for the Bachelor of Music Education will take the following courses (see also Liberal Education and graduation requirements).

(Part of general studies for music majors; prerequisite to admittance to the major in music education.)

Option I, Instrumental Emphasis		*Semester Hours*
MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	14
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	0
MUSC 263-264	Ear-Training	2
MUSC 173-174	Piano Class	2
MUSC 417	Senior Recital	1
		35

II. Professional Courses

MUSC 271	Music in the Public School	2
MUSC 373	Elementary School Music	3
MUSC 375	Instrumental Methods and Materials	2
MUSC 471	Marching Band Techniques	2
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		33

III. Additional Music Requirements

MUSC 171	String Instruments Class	1
MUSC 172	Woodwind Instruments Class	1
MUSC 175	Brass Instruments Class	1
MUSC 176	Percussion Instruments Class	1
MUSC 365	Arranging	2
MUSC 474	Instrumental Conducting	2
		8
	Total	77

Option II, Vocal Emphasis

MUSC 161-162	Foundations of Music	8

I. Music Core

MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	14
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	0
MUSC 263-264	Ear-Training	2
MUSC 173-174 or 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
MUSC 475	Pedagogy	2
		37

I. Professional Courses

MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
SPED 365	Foundations of Education of the Exceptional Child	3
EDUC 241	Introduction to Education	3
EDUC 351	Human Growth and Development	3
PSYH 361	Psychology of Learning	3
EDUC 242	Early Involvement Internship	3
EDUC 453	Supervised Student Teaching in the Secondary School	12
		33

II. Additional Music Requirements

MUSC 365	Arranging	2
MUSC 473	Choral Conducting	2
		4
	Total	74
Keyboard majors:	Private Voice	2
	Total	76

Option III, Instrumental Endorsement

Completion of Option II plus an additional twelve hours organized as follows: choice of any three of the four instrumental techniques classes, 3 hours; additional applied music study in one of those areas (3 semesters), 3 hours; Instrumental Conducting, 2 hours; and four additional semesters of participation in an instrumental ensemble (for a total of six semesters), 4 hours.

Option IV, Vocal Endorsement

Completion of Option I plus an additional twelve hours organized as follows: Pedagogy — Vocal, 2 hours; Choral Conducting, 2 hours; Voice Class, 2 hours; additional voice study (2 semesters), 2 hours; and four additional semesters of participation in a vocal ensemble (for a total of six semesters), 3-4 hours.

Bachelor of Music in Church Music

Candidates for the Bachelor of Music in Church Music will take the following courses (see also Liberal Education and graduation requirements).

I. Music Core		*Semester Hours*
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 361-362	Form and Analysis	4
MUSC 321-322	Music History	6
MUSC 111-411	Applied Music	7
MUSC 152, 153, 154, 155, 156, 157, 158, 159	Ensembles	8
MUSC 263-264	Ear-Training	2
MUSC 173-174 or 177-178	Piano Class Voice Class	2
MUSC 417	Senior Recital	1
		44

II. Church Music and Professional Courses

MUSC 231	Handbell Methods	1
MUSC 333	Church Music Administration	2
MUSC 335	Hymnology	2
MUSC 337	Church Organs	2
MUSC 373	Elementary School Music	3
MUSC 374	Vocal Methods for the Secondary School	3
MUSC 436	History and Philosophy of Church Music	2
MUSC 437	Church Music Practicum	4
		19

III. Additional Music Requirements

MUSC 171, 172, 175	Instrumental Techniques (choose 2)	2
MUSC 462	Counterpoint	2
MUSC 473	Choral Conducting	2
MUSC 474	Instrumental Conducting	2
	Private Piano or Organ (for voice major)	
	or	
	Private Voice (for instrumental major)	2
		10

IV. Courses in Religion

RLGN 111	Old Testament History, Literature and Interpretation	3
RLGN 112	New Testament History, Literature and Interpretation	3
RLGN 354	Religion in the United States	3
		9
	Total	82

Bachelor of Arts and Bachelor of Science in Music

Candidates for the Bachelor of Arts or Bachelor of Science Degree in Music will take the following music courses (see also Liberal Education and graduation requirements):

I. Academic Emphasis *Semester Hours*

MUSC 111-212	Applied Music*	8
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 263-264	Ear-Training	2
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
MUSC 421-422	Music History Seminar	6
	Ensemble	0
		40

II. Applied Emphasis

MUSC 111-412	Applied Music	16
MUSC 161-162	Foundations of Music	8
MUSC 261-262	Harmony	6
MUSC 263-264	Ear-Training	2
MUSC 321-322	Music History	6
MUSC 361-362	Form and Analysis	4
	Ensemble	0
		42

*Eight (8) hours of Applied music credit may include study in a secondary area, but the 212 level must be reached in the student's major applied area.

Bachelor of Science in Music and Business

Candidates for the Degree of Bachelor of Science in Music and Business will take the following courses (see also Liberal Education and graduation requirements):

I. Business Core		*Semester Hours*
ACTG 271-272	Principles of Accounting I and II	6
BUAD 321	Principles of Marketing	3
BUAD 351	Principles of Finance	3
BUAD 352	Principles of Management	3
BUAD 311 or 312	Business Law	3
COMP 131	Introduction to Computer Information Systems	3
ECON 153-154	Principles of Economics	6
		27

II. Music Requirements		
MUSC 111-412	Applied Music	8
MUSC 161-162	Foundations of Music	8
MUSC 171, 172, 173, 175, 176	String, Woodwind, Piano, Brass and Percussion classes (choose any 3)	3
MUSC 261-262	Harmony	6
MUSC 322	Music History	3
		28

III. Additional Business Requirements		
BUAD 272	Salesmanship	3
OFAD 302	Business Communications	3
	Upper Division Business Elective	3
	Field Placement	3-10
		12-19

Minor in Music

Twenty-one semester hours, including Music 161-162; three semester hours selected from either Music 321 or 322; two semester hours of music electives; two years of ensemble; and completion of the 202-level of course numbering in one field of applied music, or eight hours of applied music arranged differently with the consent of the department.

DEPARTMENTAL REQUIREMENTS

Specific requirements for music majors and minors are listed in the Music Department Handbook. Students will be held responsible for requirements in the Handbook. More detailed information is given for the following:

1. Entrance Test: All music majors and minors entering the Department for the first time shall take a placement test in theory and functional piano. The test is for placement only, and in no way affects the entrance to music study.
2. Keyboard Proficiency: All candidates for the Bachelor of Music in Music Education and the Bachelor of Music in Church Music must pass the Keyboard Proficiency Test. For details, see the Music Department Student Handbook.
3. Ensemble Requirements: All music majors are required to participate in a minimum of seven semesters of one ensemble within their major performance area and two semesters in another ensemble (8 of the 9 hours must be taken for credit except for those enrolled in the BA or BS curricula). All music minors are required to participate in a minimum of four semesters in an ensemble within their major performance area.
4. Recital and Concert Attendance: Attendance at departmental recitals and concerts is required of all music majors and minors during each semester of applied music study.
5. Recital Requirements: Candidates for the Bachelor of Music degree and candidates for the Bachelor of Arts or Bachelor of Science degree in Music (Applied Emphasis) must present a full recital on their major instrument or in voice. Candidates for the Bachelor of Arts or Bachelor of Science in Music (Academic Emphasis) may be invited to present a recital by the music faculty.

APPLIED MUSIC—SECONDARY LEVEL

These courses are designed for any music major taking lessons on a secondary instrument, an elective credit for general college students.

Music 101-102. Applied Music (F,S)(1-
Freshman level secondary applied music study.

Music 201-202. Applied Music. (F,S)(1-
Sophomore level secondary applied music study.

Music 301-302. Applied Music. (F,S)(1-
Junior level secondary applied music study.

Music 401-402. Applied Music. (F,S)(1-
Senior level secondary applied music study.

APPLIED MUSIC—MAJOR LEVEL

These courses are designed for students enrolled in Music and Business and for students seekin a Bachelor of Arts or a Bachelor of Science degree with a music major or minor, applied emphasis and for the Bachelor of Music in Church Music or Music Education.

Music 111-112. Applied Music. (F,S)(1-2
Freshman major or minor level applied music study.

Music 211-212. Applied Music. (F,S)(1-2
Sophomore major or minor level applied music study.

Music 311-312. Applied Music. (F,S)(1-2
Junior major level applied music study.

Music 317. Junior Recital. (F,S)(0-1

Music 411-412. Applied Music. (F,S)(1-2
Senior major level applied music study.

Music 415-416. Applied Field Literature. (on demand)(2
A study of the literature for the student's major instrument, and related instruments where appropriate, with attention to stylistic characteristics and ornamentation.

Music 417. Senior Recital. (F,S)(0-1

Music 418-419. Sight-Reading and Accompanying. (on demand)(1
Proficiency in reading the various clefs, vocal scores; and accompaniments, with emphasis on the techniques of sensitive accompanying. Keyboard majors and selected minors only.

HISTORY AND APPRECIATION

Music 121. Introduction to Music. (F)(3
An historical approach to music appreciation focusing on period and style. Extensive listening to music literature. Not open to music majors or minors.

Music 122. Introduction to the History of American Popular Music. (S)(3
An historical approach involving the study of styles and personalities beginning with the origins of jazz and ending with current trends and concepts. Open to all students.

Music 321, 322. Music History. (F,S)(3
A study of representative music both written and recorded and readings coordinating and integrating music skills. (321) Antiquity through 1600. (322) Baroque period to the present. *Prerequisite* Music 162.

Music 421-422. Music History Seminar. (on demand)(3
Intensive study of a selected period or genre. Major paper required. *Prerequisites:* Music 321, 322

CHURCH MUSIC

Music 231. Handbell Methods. (F)(1
A study of the techniques, methods, materials, and repertory of English handbell ringing. *Prerequisite:* Music 162 or permission of instructor.

Music 333. Church Music Administration. **(F)(2)**
The role of the minister of music as related to the graded adult, youth, and children's choir programs, budget and calendar planning, the congregation, the multiple staff church, and the denomination.

Music 335. Hymnology. **(S)(2)**
The study and analysis of the hymns of the church, their sources, development, and usage in contemporary service.

Music 337. Church Organs. **(F)(2)**
The study of the history of the instrument, types of organs, basic upkeep, techniques, and service repertoire.

Music 436. History and Philosophy of Church Music. **(S)(2)**
A detailed, historical study of music within the church relating to its origin and development, with emphasis upon liturgies and historic philosophical positions of the church on music.

Music 437. Church Music Practicum. **(on demand)(4)**
One semester or one summer of supervised field work in an approved church. *Prerequisite:* Consent of the Music faculty.

ENSEMBLES

Music 151. Orchestra. **(F,S)(0-1)**
Open by audition or invitation. Participation in the activities of the Chamber Orchestra of the Cumberlands, a college/community orchestra of modest size. One rehearsal per week. May be repeated for credit.

Music 152. Union College Singers. **(F,S)(0-1)**
Open by audition only; performs in chapel, Christmas concert, Spring concert, graduation, tours, and festivals. Limited to forty-nine students; four rehearsals per week. May be repeated for credit.

Music 153. Stage Band. **(F,S)(0-1)**
Open by audition only. A jazz-oriented ensemble of appropriate instrumentation limited to twenty students. One rehearsal per week. May be repeated for credit.

Music 154. Pep Band. **(F,S)(0-1)**
Open to all interested wind and percussion students. A performance group intended to give support and entertainment at home athletic events. Two rehearsals per week. May be repeated for credit.

Music 155. Brass Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 156. Collegium Musicum. **(on demand)(0-1)**
Open to interested students. A performance group intended to give the student acquaintance with less frequently performed literature. One rehearsal per week. May be repeated for credit.

Music 157. Woodwind Chamber Ensembles. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 158. String Chamber Ensemble. **(on demand)(0-1)**
Open by audition only. Size and make-up will vary with the needs and interests of the students enrolled. One rehearsal per week. May be repeated for credit.

Music 159. Union College Chamber Singers. **(F,S)(0-1)**
A select vocal ensemble composed of a small number of singers whose repertory consists of vocal chamber music. Open by audition. May be repeated for credit.

THEORY

Music 161-162. Foundations of Music. **(F,S)(4)**
A combined course in the areas of music theory, history, and literature.

Music 261-262. Harmony. **(F,S)(3)**
Continuation of Music 161-162 in the area of part-writing and analysis. Advanced chromatic harmony of the middle Romantic period. *Prerequisite:* Music 162.

Music 263-264. Ear-Training. **(F,S)(**
Sight-singing, ear-training, and dictation to be taken concurrently with Music 261-262. Two perio per week. *Prerequisite:* Music 162.

Music 361-362. Form and Analysis. **(F,S)(**
The development of musical forms from small units to large. Study of large scale analytic tec niques including those necessary for late 19th and 20th Century music. *Prerequisite:* Music 262

Music 365. Arranging. **(S)(**
Basic techniques of orchestration and arranging. *Prerequisite:* Music 162.

Music 461-462. Counterpoint. **(461 on demand, 462 F, odd years)(**
The vocal counterpoint of Palestrina and the instrumental counterpoint of Bach. *Prerequisite:* Mus 162.

Music 465. Theory Seminar. **(on demand)(**
An advanced course in music theory, including a study of contemporary practices. *Prerequisit* Music 362 and permission of the instructor.

MUSIC EDUCATION

Music 171. String Instruments Class. **(F)(**
Class instruction in strings. (Even years only.)

Music 172. Woodwind Instruments Class. **(S)(**
Class instruction in woodwinds. (Odd years only.)

Music 173-174. Piano Class. **(F,S)(**
Class instruction in piano.

Music 175. Brass Instruments Class. **(F)(**
Class instruction in brass. (Odd years only.)

Music 176. Percussion Instruments Class. **(S)(**
Class instruction in percussion. (Even years only.)

Music 177-178. Voice Class. **(F,S)(**
Class study for students who are not prepared to study at the level of private applied voice.

Music 271. Music in the Public School. **(F)(2**
Fundamentals of public school education with special emphasis on the philosophy and founda tions of music education and the position of music within the entire curriculum. Includes directe observation of and participation in public school classroom activities.

Music 373. Elementary School Music. **(S)(3**
Methods and materials in the elementary school. Will include fundamental ability at the keyboard the fundamentals of music, and library research. Includes die observation of and participation i public school classroom activities for music majors.

Music 374. Vocal Methods for the Secondary School. **(F)(3**
Materials, rehearsal techniques, and vocal health for the secondary school student. Include directed observation of and participation in public school classroom activities. *Prerequisites:* Musi 271 and Junior standing.

Music 375. Instrumental Methods & Materials. **(S)(2**
Teaching Instrumental Music in the Public Schools: Procedures, techniques, curriculum, sched uling, administration, evaluation, materials, equipment, and community relations. Includes di rected observation of and participation in public school classroom activities. *Prerequisites:* Musi 171, 172, 175, 176, 271, and Junior standing.

Music 471. Marching Band Techniques. **(F)(2**
Functions, organization, and direction of a school marching band program. *Prerequisites:* Musi 271 and Junior standing.

Music 473. Choral Conducting. **(F)(2**
Techniques and literature. (Odd years only.)

Music 474. Instrumental Conducting. **(F)(2**
Techniques and literature. (Even years only.)

Music 475. Pedagogy. **(on demand)(2**
Techniques and principles of private and class instruction, emphasis on recommended materials.

NDEPENDENT STUDY

Iusic 495. Independent Study. **(F,S)(2-3)**
Independent study and/or research on approved topics. *Prerequisite:* Permission of the student's major professor. May be repeated for credit.

III. DEPARTMENT OF RELIGION AND PHILOSOPHY

Michael McCoy, *Department Head*
Christian Education — Religion — Philosophy — Philosophy/Religion

Courses in this Department are designed to acquaint students with the Judaeo-Christian tradition nd the other great religious traditions and with the great traditions and disciplines of human ıought; to deepen their awareness of themselves and of the human community; to cultivate their owers of critical examination of the meaning and direction of human existence.

Studies in religion are especially recommended for students of art, history, and literature, and or students preparing for Christian vocations.

Studies in philosophy are especially recommended for pre-professional education for such vo- ations as the Christian ministry, college teaching, law, journalism, creative writing, and art, as well s for students of history, literature, and the sciences.

CHRISTIAN EDUCATION

In recognition of increasing demand for trained men and women as full-time Christian workers ı the ministry of the local church, to serve in the capacities of pastor's assistant, director of youth ork, or Director of Christian Education, a specific four-year course of study has been arranged, sing the facilities of various departments. It is designed to meet the basic needs of students who ish to go directly into church positions without graduate work.

A 24-hour major is recommended in Religion, including Religion 222, plus courses in music, rama, and Appalachian studies. A second major or minor in drama or music is often helpful. The llowing three courses should supplement this major:

Speech 131. Fundamentals of Speech
Physical Education 321. Recreational Leadership
Psychology 402. Counseling Theories and Techniques

RELIGION

Requirements for a Major: The twenty-four semester hours major, recommended for Christian ducation and pre-ministerial students, must include Religion 111, 112, 311, plus Philosophy 261. he major may include Philosophy 371.

Requirements for a Minor: Twenty-one semester hours, at least nine of which must be in courses umbered above 300.

eligion 111. Old Testament History, Literature, and Interpretation. **(F)(3)**
The history of Israel from the earliest times to the Maccabean Age. Historical and literary criticism and religious significance of the emergence of Judaism.

eligion 112. New Testament History, Literature, and Interpretation. **(S)(3)**
Attention to author, date, origin, historical and religious significance.

eligion 131. World Religions. **(S)(3)**
A descriptive account of the faith and practices of present-day world religions, with emphasis on Hinduism, Buddhism, Confucianism, and Islam.

eligion 201-202. Elementary New Testament Greek. **(on demand)(3)**
A semi-inductive approach to koine Greek recommended for persons interested in religion as well as for religion majors.

eligion 212. Old Testament Prophets. **(F)(3)**
The nature of prophecy and the prophetic movement in Israel from its beginning with Moses to its close with the book of Jonah. *Prerequisite:* Religion 111 or permission of the instructor. (Even years only.)

Religion 222. Administration and Education in the Local Church. (S)
Administrative responsibilities of the Director of Christian Education as related to the pastor, lo church governing body, and the congregation. Theory and practice of Christian Education w special attention to planning a year's program in the local church.

Religion 231. The Life and Teachings of Jesus. (S)
The world into which Jesus was born and an interpretation of his messianic consciousnes personality, activities, and teachings. *Prerequisite:* Religion 112 recommended. (Even years onl

Religion 241. The Life and Teachings of Paul. (F)
The world of Paul, his life, teachings, and significance, using his letters as the primary sour *Prerequisite:* Religion 112 recommended. (Even years only.)

Religion 301-302. Elementary Old Testament Hebrew. (on demand)
A study of sufficient grammar to read simple Old Testament passages, recommended for perso interested in religion as well as for religion majors.

Religion 311. Introduction to Christian Thought. (S)
Examination of tradition and contemporary understanding of the Christian faith, with empha on the nature of God and of man; the significance of Christ and the Church; the relation of religi to morality; the meaning of Creation and Redemption; and the interpretation of Human Destin *Prerequisite:* Religion 112. (Even years only.)

Religion 327. Archaeology and the Bible. (S)
Archaeological discoveries related to the Old and New Testament eras, supplemented by wi reading in books, magazines and newspapers, and class reports, color slides and movies.

Religion 353. Church History. (on demand)
The origin and development of the Christian Church from its beginning through the Reformatio

Religion 354. Religion in the United States. (F)
This course provides students with a phenomenological and historical description of the varieti of religious practice in the United States. No prerequisites. (Odd years only.)

Religion 479. Seminar in Religion. (on demand)
Intensive study of a special subject with oral and written reports. Possible topics include Th Fourth Gospel, Apocalyptic Literature, Pauline Theology, Wisdom Literature, The Apostolic P riod. *Prerequisites:* Advanced standing and permission of the instructor.

Religion 495. Independent Study. (F,S)
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY

Requirements for a Minor. Twenty-one semester hours.

Philosophy 151. Introduction to Philosophy. (F,S)
Both a study of the nature of philosophy, its aims, problems, and methods, and an exercise philosophizing in which the student clarifies constructively and evaluates critically his own an other understandings of life.

Philosophy 202. Logic. (on demand)
Cultivation of rational acuity through an examination of the procedures and limits of ration discourse.

Philosophy 261. Philosophy of Religion. (F)
An introduction to basic modern concepts, issues, and methods in the philosophical examinatio of religion. (Odd years only.)

Philosophy 371. Ethics. (F)
Cultivation of reasoning in moral decision-making through an examination of traditional ethic theories, contemporary moral issues and the structure of moral decision.

Philosophy 376. History of Western Philosophy I: Ancient and Medieval. (on demand)
Philosophical thinking in its cultural context, from its birth through the classical and medieva eras.

Philosophy 377. History of Western Philosophy II: Modern. (on demand)
The rise and development of modern thought-forms through the nineteenth century.

Philosophy 378. History of Western Philosophy III: Contemporary. (on demand)
Twentieth century western thinking and its nineteenth century backgrounds, with particula reference to modern idealism, phenomenology, existentialism, pragmatism and the analytic movement. *Prerequisite:* any philosophy course.

hilosophy 479. Seminar in Philosophy. **(on demand)(3)**
Intensive study of a special topic such as Epistemology, Metaphysics, Plato, Kant. *Prerequisite:* Permission of instructor.

hilosophy 495. Independent Study. **(F,S)(3)**
Independent study or research on approved topics. May be repeated for credit.

PHILOSOPHY/RELIGION

The Philosophy/Religion major is recommended for students interested in pursuing studies in the raditions of Western Thought and Values. It is a useful course for pre-professional training in such reas as law, teaching, and Christian vocations. It is also an appropriate major for students seeking road liberal arts backgrounds or preparation for graduate study in philosophy or religion.

he major consists of thirty hours including the following courses:
Religion 111. Old Testament History, Literature and Interpretation
Religion 112. New Testament History, Literature and Interpretation
Religion 311. Introduction to Christian Thought
Philosophy 151. Introduction to Philosophy
Philosophy 202. Logic
Philosophy 376. History of Western Philosophy I: Ancient and Medieval
Philosophy 377. History of Western Philosophy II: Modern

The remaining three courses may be elected from courses in Religion or Philosophy at the 300 evel or above. It is strongly recommended that at least one of these courses be either Religion 479 r Philosophy 479.

DIVISION OF NATURAL SCIENCES

Robert W. Swanson, *Chairperson*
Biology — Chemistry — Computer Science — Environmental Studies
General Science — Mathematics — Physics — Science Education

BIOLOGY

Requirements for a Major: A major in Biology consists of the courses listed below plus a additional 8 hours in Biology.

		Semester Hou
BIOL 111	Introduction to Biology	4
BIOL 232	General Zoology	4
BIOL 233	General Botany	4
BIOL 361	Genetics	4
BIOL 431	Cell Biology	
OR		
CHEM 421	Biochemistry	3
BIOL 441	Ecology	4
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
GNSC 471	Science Seminar	1
MATH 131	College Algebra	3
MATH 211	Basic Statistics	
OR		
BHSC 245	Basic Statistics: Theory and Application	3
One of the following groups of Physics courses		7-9
PHYS 111-112	Elements of General Physics	
PHYS 113	Elements of General Physics Laboratory	
OR		
PHYS 211-212	General Physics	
PHYS 213	General Physics Laboratory	

Those students seeking secondary certification must complete two semesters of physics laboratory

Biology 234 and 331 are highly recommended as electives for students seeking secondary certification Recommended additional cognates consist of Mathematics 241 and Chemistry 212, 311-312.

Requirements for a Minor: Twenty-four semester hours in Biology are required. Biology 111, 23 and 233 must be included. Students seeking secondary certification must complete either the are of concentration in science or major in mathematics, chemistry or physics.

Biology 109. Elements of Biology. **(F,S,Sum)(3**
An introduction to the principles of modern biology including: biological chemistry, cell biology modern and classical genetics. cellular energetics, and evolution. A survey of mammalian phys iological systems is also covered.

Biology 110. Elements of Biology Laboratory. **(F,S)(1**
Optional laboratory course to accompany Biology 109. No credit will be given for Biology 11 without simultaneous or prior successful completion of Biology 109.

Biology 111. Introduction to Biology. **(F)(4**
A course emphasizing general concepts of modern biology for majors and non-majors. Topic surveyed include cell biology, bioenergetics, molecular and Medelian genetics, reproduction development, evolution and ecology. Human relevance is stressed. Laboratory work is included This course is a prerequisite to all other courses in biology. *Prerequisites:* High school biology an chemistry strongly recommended; ACT Natural Science score of 25 or higher recommended fo freshmen.

Biology 151. Medical Terminology. **(F)(2**
The study of the specialized terminology of medical science. Recommended for pre-professiona students, biology majors, allied health students, and students in other health-related fields. Thos seeking secondary certification cannot count this course toward certification requirements. Thi course does not meet the biological science requirement for teacher education. (Odd years only.)

Biology 232. General Zoology. **(F)(4)**
A survey of the animal kingdom with emphasis on diversity, evolution, and environmental relationships. Additional topics include energy metabolism, taxonomy, reproduction, population phenomena, behavior and sociology.

Biology 233. General Botany. **(S)(4)**
A survey of the organisms which possess cells walls including: Protoctista, Fungi, Algae, and especially the Plants. Emphasis is given to ecological and economic importances, morphology, and evolutionary relationships. The course also involves a brief review of major biological concepts such as cell structure, cell energetics, and classical and molecular genetics.

Biology 234. Microbiology. **(S)(4)**
An introduction to the classification, morphology, physiology, and genetics of the bacteria, fungi, viruses, and micrometazoans, as well as their roles in nature, health, and industry. Laboratory work stresses techniques for the culture and identification of microorganisms. A portion of the course is devoted to immunology. *Prerequisites:* Biology 111 and Chemistry 111. (Even years only.)

Biology 315. Vertebrate Biology. **(on demand)(4)**
The anatomy, physiology, taxonomy, ecology, behavior, and evolution of the vertebrate phyla with emphasis on the species endemic to southeastern Kentucky.

Biology 321. Field Biology. **(S)(3)**
Field investigations including observation, collection, and identification of local fauna and flora are offered under discrete course headings including: Limnology, Ornithology, Entomology, Local Flora, Dendrology, and Mycology. Pertinent field data are collected and analyzed appropriately. Two one-hour lectures and one three-hour laboratory session per week. (Even years only.)

Biology 330. Anatomy and Histology. **(F)(4)**
A study of the tissues, organs, and organ systems of vertebrates with emphasis on the human body in health-related sciences. (Odd years only.)

Biology 331. Human Physiology. **(S)(4)**
A study of the functioning of the human organ systems with normal and clinical considerations. *Prerequisites:* Chemistry 112 and 132. (Odd years only.)

Biology 350. Parasitology. **(on demand)(4)**
An intense study of protozoan and metazoan parasites with an emphasis on morphology, life cycles, pathology and control. The laboratory component emphasizes methods used to 1) necropsy host animals, 2) prepare parasites for identification, and 3) analyze host pathology by employing histological techniques. A slide collection of various parasites is required. *Prerequisites:* Biology 111 and 232.

Biology 361. Genetics. **(F)(4)**
An introduction to the principles of inheritance from both classical and molecular perspectives. *Prerequisites:* Math 111 and 211 (or Behavioral Science 245).

Biology 431. Cell Biology. **(F)(3)**
An indepth survey of the structure and function of a wide range of living cells with consideration of biochemical and biophysical bases of this structure and function. Certain characteristics of viruses are also considered. *Prerequisites:* Chemistry 112, 132; Biology 111, 232 and 233. Prior completion of Chemistry 311 and Biology 234 is desirable. (Even years only.)

Biology 436. Evolution. **(S)(3)**
An introduction to the theory and processes of evolutionary biology. Topics include the historical development of the discipline, the principle mechanisms by which it occurs, tempo and mode of speciation, both biological and geological sources of evidence, and the impact of evolutionary thought on biology and society will be emphasized. (Even years only.)

Biology 441. Ecology. **(S)(4)**
A study of the relationships between organisms and their abiotic and biotic environment including biogeochemical cycles, population dynamics, diversity, and pollution of terrestrial and aquatic ecosystems. *Prerequisites:* Biology 232 and 233. Completion of Biology 361 is recommended.

Biology 495. Independent Study and Research. **(F,S)(1-3)**
An introduction to the methods of science through original research. For advanced students who have demonstrated potential for performing an independent investigation of a substantive problem. The problem is chosen and carried out in collaboration with the instructor. A typewritten report in publication style is required.

CHEMISTRY

Requirements for a Major: Thirty semester hours of Chemistry including Chemistry 111, 11 131, 132, 212, 311, 312, and 342. Science cognates consist of Physics 211, 212, 213, 214, 311; Mat ematics 241, 242; and General Science 471.

Requirements for a Minor: Twenty-one semester hours including Chemistry 111, 112, 131, 13 311 and either 212 or 411.

Chemistry 111-112. General Chemistry. **(F,S)(**
A systematic study of the fundamentals and applications of the experimental and theoretical law of chemistry. Major topics include nomenclature, stoichiometry, chemical thermodynamics, equ librium, acid-base reactions, atomic and molecular theory and structure, chemical kinetics ar nuclear chemistry. Examples and problems are drawn from all areas of chemistry. Concurre registration in General Chemistry Laboratory, Chemistry 131-132, is highly recommended for a students. *Prerequisite:* A working knowledge of algebra such as is acquired in two years of hig school algebra, or Mathematics 131 (which may be taken concurrently), or a composite ACT sco of 20.

Chemistry 131-132. General Chemistry Laboratory. **(F,S)(**
Laboratory experiments in general chemistry that illustrate basic principles and develop laborato skills. Experiments are coordinated with the General Chemistry topics. Inorganic qualitative ana ysis is included in Chemistry 132. Three hours of laboratory per week. Concurrent registratio or previous completion of Chemistry 111-112 is required. No credit may be received for Chemist Laboratory 131-132 without the simultaneous or prior completion of the corresponding lectu courses Chemistry 111-112.

Chemistry 212. Quantitative Analysis. **(F)(**
A study of important volumetric and gravimetric analyses presented from a modern theoretic standpoint. Also an introduction to the study of advanced methods of analysis including som newer instrumentation techniques. *Prerequisites:* Chemistry 112 and 132.

Chemistry 311-312. Organic Chemistry. **(F,S)(**
A course in the chemistry of organic compounds. Unitized laboratory work is designed to illustra the basic principles of organic chemistry. *Prerequisites:* Chemistry 112 and 132.

Chemistry 342. Physical Chemistry. **(S)(**
A study of atomic structures and chemical bonding in terms of modern quantum theory. Topi include molecular spectra, physical methods of investigation and chemical kinetics. *Prerequisite* Mathematics 242 and Physics 212. (Odd years only.)

Chemistry 411. Inorganic Chemistry. **(S)(**
A systematic study of the structure, properties and reactions of non-carbon elements, with em phasis on the non-metals and the transition metals. Topics include atomic-molecular structu and bonding, physical methods of investigation, organometallic chemistry and bioinorganic chem istry. *Prerequisite:* Chemistry 312. (Even years only.)

Chemistry 421. Biochemistry. **(S)(**
Study of chemistry, energetics and metabolism of biomolecules, such as, carbohydrates, protein lipids, nucleic acids, enzymes and vitamins with reference to living systems. *Prerequisite:* Chem istry 312. (Odd years only).

Chemistry 495. Special Problems. **(F,S)(**
This is an introduction to the methods of scientific research. The course is designed for th advanced student who has demonstrated ability to do independent work in Chemistry. It wi consist of a particular problem decided upon after consultation with the instructor. Upon co clusion of the work a typewritten and bound report-thesis may be required. An examination ma or may not be given, depending on the nature of the problem.

COMPUTER SCIENCE

Requirements for a Minor: Twenty-one semester hours consisting of Mathematics 241, Comput Information Systems 121, 221, 250, 310, 315 and an additional Computer Information Systems cours numbered 200 or above. Course descriptions are listed under Computer Information Systems.

ENVIRONMENTAL STUDIES

Requirements for a Minor: Twenty-four hours, to be chosen by the student, the student's major visor, and an advisor from Environmental Studies. Courses are also listed under the various partments to which they relate. The required core: Environmental Studies 101 and 313, Biology 9 or 111, and Economics 251. The remainder of the courses are to be chosen from other Environ-ental Studies courses or the following recommended electives: Biology 315, 321, 441; Geography 1; Mathematics 125; Philosophy 371; Sociology 311, 371, 421 and certain experimental courses.

vironmental Studies 101. Man and the Environment. **(F)(3)**
A multi-disciplinary course in which basic ecological principles are developed and used to show human impact on natural eco-systems. Topics include endangered species, impact of population growth, land use and the management problems, food production and demands.

vironmental Studies 110. Physical Systems of the Environment. **(S)(4)**
A study of the physical environment as the home of man. Emphasis on distribution and interaction of environmental variables (weather, landforms, vegetation, soils, and climate). This course may be used to fulfill the physical science requirement for students seeking teacher certification. Laboratory activities included.

vironmental Studies 313. Environmental Policy. **(F)(3)**
A study of the decision-making processes and the consequences of alternative courses of action on environmental quality. Analyzes the impact of public opinion, the various branches of government and pressure groups on environmental/energy policies at the federal and state levels. *Prerequisites:* Environmental Studies 101 and an introduction political science course, or permission of instructor. (Odd years only.)

vironmental Studies 350. Our Geologic Environment. **(S)(4)**
Significance of regional and local geological features and processes in land use planning. Use of geological information to reduce conflicts in utilization of mineral and water resources and damage due to natural hazards. *Prerequisites:* Environmental Studies 110 or 113. (Odd years only.)

vironmental Studies 469. The Appalachian Environment. **(Sum)(3)**
Conservation of natural resources including soil, water, wildlife and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. *Prerequisites:* Two courses in environmental studies or biology and an introductory economics course.

vironmental Studies 487. Field Practicum in Environmental Studies.

GENERAL SCIENCE

ither a major nor a minor is offered.

neral Science 124. Introduction to Physical Therapy. **(S)(2)**
A general orientation to the historical background, philosophy and professional ethics of physical therapy, interprofessional relationships between members of the health care team; concepts of health and disease; overview of the total medical spectrum, medical technology, modalities used in physical therapy, and orientation to clinical service departments and their administration.

neral Science 401. Science: Concepts, Processes and Inquiry. **(S)(3)**
The student will examine the processes in science such as collecting data, measuring, predicting, formulating hypotheses, experimenting, etc. As materials from such programs as ESS, SCIS IME, IIS, ISCS, PSSC, etc., are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching science will be stressed along with individualized instruction, learning theory, laboratory equipment use (commercial and home-made) and multimedia instruction. *Prerequisite:* Admission to Teacher Education Program.

neral Science 471. Science Seminar. **(S)(1)**
A lecture/discussion of selected topics of interest, lead by faculty members of the Division of Natural Sciences, invited speakers, and student participants. May be repeated once; a student can earn a maximum of two credit hours through this course. All natural science majors must take this course at least once. *Prerequisite:* Natural science major with Junior or Senior standing, or permission of the instructor.

MATHEMATICS

Requirements for a Major: Thirty semester hours numbered 241 and above including Mathematics 241, 242, and two of the following courses: Mathematics 333, 402, 403. Computer Information Systems 121, Physics 211, 212, 213, and 214 are also required. Those seeking secondary certification should include Mathematics 301 and 333.

Requirements for a Minor: Twenty-one semester hours numbered 241 and above to include Mathematics 241, 242, and Computer Information Systems 121.

Mathematics 100. Elements of Mathematics. **(F,S)(3**
This course is intended for students who need to improve their arithmetic and elementary algebra skills to take other mathematics courses or courses requiring quantitative reasoning. The course includes a brief review of whole number arithmetic (particularly prime factorization, exponents and perfect squares), an extensive review of fractions, decimals, ration and proportion, percent and an introduction to algebra (including arithmetic integers, algebraic expression, and linear equations).

Mathematics 108. Intermediate Algebra. **(F)(3**
This course is intended for students with a weak background in high school algebra who want to know more about the subject and/or plan to take Mathematics 131, College Algebra. The course includes a review of the real number system (particularly integers and irrational numbers), operations with polynomials, operations with algebraic fractions, simplification of radical expressions, solutions of equations and inequalities (linear quadratic, higher order, and simultaneous) and an introduction to graphs and functions. *Prerequisite:* Successful performance on entrance exam covering arithmetic and elementary algebra (given on first day of class).

Mathematics 125. Graphic Analysis. **(F)(3**
Basic map reading for geologic and topographic maps, scaled drawings, use of planimeter, excavation sections, coal tonnage estimation, methods and procedures of three-dimensional modeling from topographic maps as a basis of engineering calculations.

Mathematics 131. College Algebra. **(F,S,Sum)(3**
Brief review of intermediate algebra, including rational expressions, radicals, and exponents solving equations,including quadratic equations; Applications; solving inequalities, including quadratic inequalities; graphing equations; graphs of functions; combining functions and finding inverse functions; exponential and logarithmic functions; systems of equations.

Mathematics 132. Trigonometry. **(F)(2**
Similar triangles; right triangle trigonometry, trigonometric functions of the general angle; Law of Sines; Law of Cosines; Identities; Inverse trigonometric functions; Complex numbers; Complex exponentials.

Mathematics 203-204. Structure of the Number System. **(F,S)(3**
Historical development of the numeration system from an intuitive to a logical approach based upon set theory, definitions of the basic operations on whole numbers and their properties extended to integers, rationals, and irrationals; study of why and how of algorithms for all operations; topics in informal geometry.

Mathematics 211. Basic Statistics. **(S)(3**
Basic concepts of descriptive and inferential statistics. Illustrations of applications in the fields of education, business, sociology, psychology, and natural science. *Prerequisite:* High-school algebra or permission of the instructor.

Mathematics 232. Surveying. **(S)(3**
Principles, calculations, and field practice in surveying, measuring distances and elevations, stake method, map reading, land areas, care and use of instruments. *Prerequisite:* Mathematics 108 or equivalent, or permission of the instructor.

Mathematics 241. Introduction to Calculus and Analytic Geometry. **(S)(4**
Inequalities, the straight line, conic sections, limits, the derivative, differentiation of algebraic functions, applications of the derivative, extrema, and the antiderivative. *Prerequisite:* Mathematics 111 or permission of instructor.

Mathematics 242. Intermediate Calculus and Analytic Geometry. **(F)(4**
The integral, applications of the integral, logarithmic and exponential functions, trigonometric functions, hyperbolic functions, techniques of integration, L'Hospital's Rule and indeterminate forms, and improper integrals. *Prerequisite:* Mathematics 241.

hematics 243. Advanced Calculus and Analytic Geometry. **(S)(4)**
opics selected from polar coordinates, vectors, solid analytic geometry, partial differentiation, ıultiple integration, infinite series, and differential equations. *Prerequisite:* Mathematics 242.

hematics 301. Principles of Geometry. **(S)(3)**
his course will be divided into three sections. Mathematical Proof: connectives, implications, uth tables, principles of proof, hypothesis, theorems. Plane Geometry: the application of the chniques of a proof to plane geometry topics non-euclidean geometry. Analytic Geometry: the antesian plane, development of equations of a locus, equations for conic sections. *Prerequisite:* Mathematics 111 or 204. (Even years only.)

hematics 331. Introduction to Linear Algebra. **(F)(3)**
ector algebra in Euclidean spaces, lines and planes in space, matrices and linear equations, roups, and rings. *Prerequisites:* Math 111 and permission of the instructor. (Odd years only.)

hematics 332. Linear Algebra. **(S)(3)**
ector spaces, subspaces, linear independence, linear transformations, determinants, inner product spaces, orthogonality, and unitary transformations. *Prerequisite:* Mathematics 331. (Odd years nly.)

hematics 333. Modern Algebra. **(on demand)(3)**
n introduction to abstract algebra including groups, subgroups, quotient groups, isomorphism ieorems, rings, and ideals. *Prerequisite:* Mathematics 241 or permission of the instructor.

hematics 372. Probability and Mathematics Statistics. **(F)(3)**
heoretical probability using point set approach, probability as a frequency ratio; probability for nite sample spaces; conditional probability; joint and continuous distributions, binomial distriution; Baye's theorem; statistical applications of probability; theory of sampling and variance. *rerequisites:* Mathematics 242, which may be taken concurrently, and permission of the instructor. Even years only.)

hematics 402. Functions of a Complex Variable. **(on demand)(3)**
omplex numbers, analytic functions, elementary functions of a complex variable. Cauchy's ormula, Liouville's theorem, Laurent's series, residues, contour integration, conformal mapping, hysical applications. (Even years only.)

hematics 403. Introduction to Analysis. **(on demand)(3)**
ets and functions, topological ideas, LUB property, real sequences, continuity, mean value ieorems, integration, definite integrals, Taylor's theorems, improper integrals, convergence of ıfinite series, power series, improper integrals with parameter. (Even years only.)

hematics 471. Differential Equations. **(S)(3)**
ifferential equations of first order and first degree, differential equations of first order and higher egree, differential operators and linear differential equations, reduction of order. *Prerequisite:* Iathematics 242. (Even years only.)

hematics 495. Independent Study. **(F,S)(3)**
ıdependent work on topics selected to meet the student's needs. For Mathematics majors only.

PHYSICS

equirements for a Major: Physics 211, 212, 213, 214, 311, 312, 401, and 411 plus an additional ıours of upper level physics courses. Chemistry 342 may be included. Required science cognates ude Chemistry 111, 112, 131, and 132; Mathematics 241, 242, and 243; and General Science 471.

equirements for a Minor: A minimum of twenty-one semester hours of Physics numbered 211 above, including Physics 211, 212, 213, 214, 401, and either 311 or 312.

equirements for Secondary Certification: A teacher education student who selects a major in sics is required to complete Biology 111 or 109 and 110 as well as Physics 105 or Environmental dies 110. Those who select a minor in physics are required to complete one of the following: the of concentration in science; the area of concentration in mathematics-physical science; or a hing major in either mathematics, biology, or chemistry.

sics 105. Astronomy. **(S)(4)**
n introduction to the elements of astronomy. Constellation identification, telescope operation, olar features, life and death of stars, galaxies and cosmology. Experiments and activities will lustrate telescope use, star and constellation identification, analysis of data from photographs nd spectrum charts, etc.

Physics 111-112. Elements of General Physics. **(F,S)(**
These courses are intended for life science and non-science students. They may be taken separate and in any order. Physics 111 topics include mechanics of motion; the properties of solids, liquid and gases; and thermal phenomena. Physics 112 topics include wave motion and vibration electricity and magnetism; optics; and selected topics in modern physics. Does not count towa a minor. *Prerequisite:* High school algebra or permission of the instructor.

Physics 113-114. Elements of General Physics Laboratory. **(F,S)(**
Laboratory experiments accompanying Physics 111 and 112 respectively to illustrate basic pri ciples and develop laboratory skills. No credit may be received for these laboratory courses witho concurrent or prior completion of the corresponding lecture course.

Physics 211-212. General Physics. **(F,S)(**
Mechanics of solids, liquids and gases; laws of thermodynamics; kinetic-molecular theory, v brating bodies; wave physics; laws of Coulomb, Faraday, Ampere, Ohm, Joule, and Lenz; ele tromagnetism; optics. *Pre- or Corequisite:* Mathematics 242.

Physics 213-214. General Physics Laboratory. **(F,S)(**
A general physics laboratory course involving experiments in mechanics, heat, sound, electricit magnetism, and optics. Experiments are coordinated with Physics 211-212.

Physics 232. Basic Electronics Laboratory. **(on demand)(**
Theory and applications of solid state devices, power supplies, motors, transformers, A.C. ar D.C. circuits and diagrams, circuit protections, control circuits. *Pre- or Corequisite:* Physics 112.

Physics 303. Relativity. **(on demand)(**
Einstein's Special Theory of Relativity, including relativistic kinematics and relativistic momentu and energy. *Prerequisites:* Mathematics 131 and 132.

Physics 310. Statics. **(S)(**
Study of force systems on bodies at rest. Applications of conditions of equilibrium to coplan and space systems. Virtual work, centroids, moments of inertia, and products of inertia. *Prere uisite:* Physics 211. (Odd years only.)

Physics 311. Heat and Thermodynamics. **(F)(**
Thermodynamic systems and processes, equations of state, PVT surfaces and real substance laws of thermodynamics, energy equations, enthalpy, entropy, thermodynamic potentials, a plication of thermodynamics to simple systems. *Prerequisites:* Physics 212 and Mathematics 24 (Even years only.)

Physics 312. Electricity and Magnetism. **(F)(**
Electric charges, forces, field and potential with associated magnetic forces and fields; dielectr theory; capacitance, inductance, resonance, and oscillations; series and parallel DC and AC ci cuits; measuring instruments; Maxwell's equations and electromagnetic waves. Four lecture hou per week. Strongly recommend prior enrollment in Physics 232. *Prerequisites:* Physics 212 ar Mathematics 243 and 471. (Odd years only.)

Physics 401. Principles of Modern Physics. **(F)(**
Elementary concepts of quantum mechanics, selected topics in atomic and nuclear physics. *Pr requisite:* Physics 212 and Mathematics 242. (Even years only.)

Physics 411. Classical Mechanics. **(S)(**
Motion of a particle, systems of particles, rigid bodies; moving coordinate systems; Lagrange equations; small oscillations. *Prerequisite:* Mathematics 243. (Even years only.)

Physics 412. Physical Optics. **(on demand)(**
Wave propagation and superposition; interference, diffraction, absorption, dispersion, polariz tion, double refraction, interaction of radiation with matter, laser theory; theory of selected optic instruments. *Prerequisite:* Physics 212.

Physics 420. Experimental Physics. **(S)(**
An upper-level physics laboratory course focusing on fundamental physical constants. Includ computer simulations. The class consists of one lecture hour and one laboratory hour. *Prerequisite* Physics 211, 212, 213 and 214. (Even years only.)

SCIENCE EDUCATION MAJORS (SPECIALIZATION COMPONENT FOR CERTIFICATION)

Students who wish to teach secondary science may choose one of the following three programs: A) A Major (30 hours) in one of the sciences plus a certifiable minor in one of the other sciences or mathematics; (B) A mathematics-physical science area of certification; (C) A science area of concentration. Those seeking certification in the middle grades also have available an area of specialization in science.

All students seeking secondary certification in biology, chemistry or physics must take at least sixteen semester hours in biology, chemistry, physics or environmental studies outside the major requirements.

AREA OF CONCENTRATION IN MATHEMATICS-PHYSICAL SCIENCE

A total of 48 semester hours are required including:

		Semester Hours
CHEM 111-112	General Chemistry	6
CHEM 131-132	General Chemistry Laboratory	2
CHEM 212	Quantitative Analysis	
OR		
CHEM 411	Inorganic Chemistry	4
CHEM 311	Organic Chemistry	4
MATH 241-242	Calculus and Analytic Geometry	8
MATH 331	Introduction to Linear Algebra	3
	Mathematics elective	4
PHYS 211-212	General Physics	8
PHYS 213-214	General Physics Laboratory	2
	Physics electives	7
		48

At least 18 semester hours must be in courses numbered 300 or above. General Science 471 is highly recommended and may be counted in this 18 hour requirement. Students who choose this area are urged to exceed the minimum semester hour requirement and complete 21 semester hours in each of two of the three fields (chemistry, mathematics, and physics).

A major or additional minors may be taken in the area. A teacher with such preparation would be certified only to teach in the major or minor disciplines and all general interdisciplinary science courses at the secondary level.

AREA OF CONCENTRATION IN SCIENCE

A total of 48 semester hours are required including:

		Semester Hours
BIOL 111	Introduction to Biology	4
BIOL 232	General Zoology	
OR		
BIOL 330	Anatomy and Histology	4
BIOL 233	General Botany	
OR		
BIOL 321	Field Biology	3-4
CHEM 111-112	General Chemistry	6
CHEM 131	General Chemistry Laboratory	1
ENVS 110	Physical Systems of the Environment	4
ENVS 350	Man's Geologic Environment	4
GNSC 471	Science Seminar	1
PHYS 211-212	General Physics	8
PHYS 213	General Physics Laboratory	1
		36-37

Also included must be a minor in either biology, chemistry or physics. At least 18 semester hours must be in courses numbered 300 or above.

3. TEACHING MINORS

A teacher education student who selects a minor in biology, chemistry or physics is required t complete one of the following: the area of concentration in science; the area of concentration i mathematics-physical science; or a teaching major in either mathematics, biology, chemistry, c physics.

PRE-PROFESSIONAL PROGRAMS

Students who have career interests in medicine, dentistry, veterinary medicine, optometry, c medical technology may fulfill the admissions requirements of respective professional schools b pursuing a Bachelor's degree in biology or chemistry. Students may also arrange for transfer to professional school after three years (ninety-six semester hours) at Union College. Upon completio of one year of study at the professional school, students will be awarded their Bachelor's degre from Union College. (See section on Combined Degrees.)

Since admission requirements of professional schools vary considerably, all students having a interest in these fields are advised to select the professional school they wish to attend and choos pre-professional courses accordingly. An academic advisor will be assigned who, working closel with the student, will plan a program of study and assist with the admissions process into th professional school of their choice. For details of specific programs, the following faculty membe should be consulted:

Dentistry — Chandler
Engineering — Carter, Pfeiffer
Medical Technology— Chandler
Medicine — Chandler
Optometry — Covington, Swanson
Pharmacy — Swanson
Physical Therapy — Chandler
Veterinary Medicine — Chandler

PHYSICAL THERAPY

Union College provides a two year curriculum which allows students to complete courses require for entrance into the Physical Therapists Assistant (PTA) program at Jefferson Community Colleg in Louisville or the Physical Therapy Program at the University of Kentucky in Lexington.

Union College and Jefferson Community College have entered into an agreement whereby stu dents from southeastern Kentucky may work toward an Associate of Applied Science degree an qualify to be a PTA. The student will take courses at Union College during the first two years an complete the program at Jefferson Community College during the third year. Jefferson Communit College reserves two positions annually for qualified Union College students. To qualify for grad uation from this program, a student must also present a Red Cross First Aid Certificate earne within the last four years. Students who enter this program will be asked to state in writing the intent to return to southeastern Kentucky to work as PTA's.

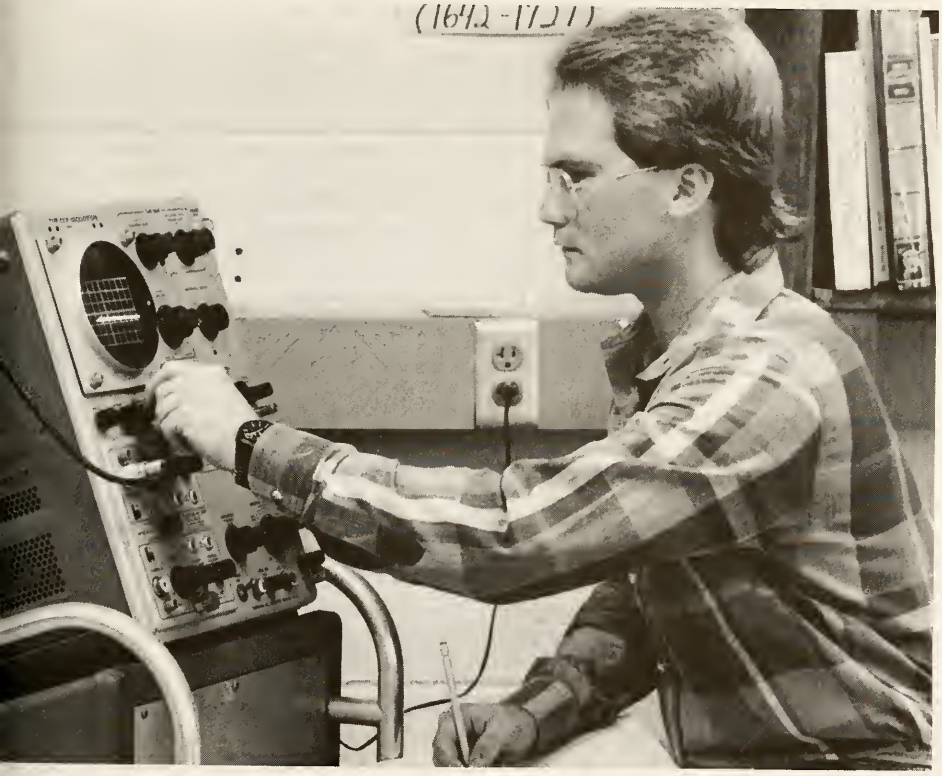
The Department of Physical Therapy at the University of Kentucky has approved Union's course work for the two year Pre-Professional Phase of their program. Admission to the Professional Phas at the University of Kentucky is based on completion and is not guaranteed.

DEGREE IN MEDICAL TECHNOLOGY

Union College has cooperative agreements with University of Louisville and The Methodist Hos pital of Kentucky, Pikeville, in which the student attends Union College for three years and, upo acceptance, enters the cooperating institution and receives clinical training in medical technolog for twelve months. On satisfactory completion of the program the student is awarded a bachelor' degree in medical technology and should be qualified for a national certifying examination.

COMBINED DEGREE IN ENGINEERING

A Cooperative "Three-Two Plan" has been worked out with the University of Kentucky and uburn University in which the student attends Union College for three years pursuing certain pre-ıgineering courses in addition to a solid program in liberal arts. At the end of the three years, ɔon the recommendation of Union College, the student enters the cooperating university or any ·credited engineering school as a junior and in two additional years completes all the requirements r the B.S. degree in Engineering. Both the B.A. or B.S. from Union College and a B.S. in Engineering ɔm the cooperating university are awarded at the end of the fifth year.



DIVISION OF SOCIAL SCIENCES

James C. Raymondo, *Chairperson*
Appalachian Studies and Appalachian Semester
Anthropology — Behavioral Sciences — Geography
History — Political Science — Pre-Law — Psychology
Sociology — Area in Social Studies Education

ANTHROPOLOGY

Anthropology 221. Introduction to Cultural Anthropology. **(S**
A survey of the archaeological and biological history of mankind as it relates to the developm of man and his culture, with comparisons drawn between the cultures of primitive people a Western Civilizations.

Anthropology 251. North American Indian Cultures. **(F**
The historical development of North American Indian technology, and the cross-cultural stu of four diverse Indian cultures at the time of White contact, will be the main focus of this cou Economics, ecology, technology, role relations, medicine, politics and conflict will be the fo of study in each culture. (Even years only.)

BEHAVIORAL SCIENCES

The two departmental courses listed below are "core" courses in the Behavioral Sciences cur ulum. Both courses are required as a part of the Psychology and Sociology majors or minors.

Behavioral Science 245. Basic Statistics: Theory and Application. **(F,S**
Basic concepts of descriptive and inferential statistics, illustrations of applications in the field sociology, psychology, business, education, and natural science. Should demonstrate a proficie in basic mathematics and algebra as determined by grades in Mathematics 100 or on a placem test.

Behavioral Science 341. Methods of Behavioral Science Research. **(S**
Techniques and philosophies of behavioral science research including experimental, quasiexp imental, survey, evaluation, field, and unobtrusive designs for the collection and interpretat of information.

Behavioral Science 495. Independent Study. **(on demand)(1**

GEOGRAPHY

Geography 101. Introduction to Geography. **(S)**
Emphasis on the concepts of place, region, spatial interaction, landscape interpretation and la scape evolution. Deals with the graphic media of geography — maps, graphs, scale models. C studies illustrate geographic principles to familiarize students with various parts of the wor For future teachers as well as students of the natural and social sciences.

Geography 241. Geography of Appalachia. **(F)**
A systematic analysis of the physical, demographic, economic and cultural characteristics of Appalachian landscape, with comparative significance for other regions. Includes field stu (Even years only.)

HISTORY

Requirements for a Major: Thirty semester hours of history including History 111, 112 and 3 At least 12 hours must be U. S. History and 12 hours must be non-U.S. History. Military Scie 202 may be counted toward the U.S. history requirement.

Requirements for a Minor: Twenty-one semester hours in history; including History 111 and 1 At least 9 hours must be in U.S. History and 9 in non-U.S. History. Military Science 202 may counted toward the U.S. history requirement.

History 111. World History to 1500. **(F,S)**
Survey of the institutions, culture, and thought of major world civilizations to 1500. The cou will focus primarily on Western civilization, with some attention given to the development China, India, the Americas, and Africa.

History 112. World History since 1500. **(F,S)**
Survey of world history during the period of European expansion and colonial domination.

listory 201. United States History to 1865. **(F)(3)**
A survey of American history through the Civil War, tracing the development of the American nation. Stress is placed on the nature of colonial society; the American Revolution; the creation of a national government; the influence of Jackson, and the Civil War.

listory 202. United States History since 1865. **(S)(3)**
A survey of American history to present times tracing the rise of America as a world power. Emphasis is on the changes of industrialization; the loss of civil rights; protest and reform; the Depression; and American influence in the world.

listory 233. History of Appalachia. **(F)(3)**
A survey of the region from settlement to the present time. The course focuses especially on the impact of the frontier experience, the Civil War and industrialization. "How is Appalachia both similar to and different from the rest of America?" is a major question addressed by the course. (Odd years only.)

istory 241. American Economic History. **(F)(3)**
Examination of the economic forces shaping the development of the American nation. Topical consideration of mercantilism; the rise of capitalism; slavery; the shocks of industrialization; the New Deal; and criticism of American economic power and capitalism. (Odd years only.)

istory 300. Historical Research and Methods. **(S)(3)**
Gathering and criticism of data; bibliographies and aids; problems in historiography, composition analysis, and the final monograph.

istory 311. United States Colonial and Revolutionary Eras (1600-1815). **(F)(3)**
An examination of the conflicting historical interpretations of these eras. Topics emphasized will be Puritanism; Colonial society; reasons for the Revolution; the meaning of the constitution; and the nation's early problems. (Even years only.)

istory 312. Jacksonian Era & the Civil War (1815-1865). **(S)(3)**
Emphasis on the conflicting historical interpretations of Jacksonian American and the Civil War. Topics include the Second Political Party System; slavery; expansion; and the causes of the Civil War. (Even years only.)

istory 313. Industrial America (1865-1919). **(F)(3)**
A consideration of the conflicting historical interpretations of the period. Topics emphasized include the loss of Civil Rights; the nature of the Gilded Age; Populist and Progressive Reforms; and World War I. (Odd years only.)

istory 323. Latin America. **(S)(3)**
Survey of Latin American history from the discoveries by Columbus to the present. (Odd years only.)

istory 342. History of Britain. **(F)(3)**
British history from the War of the Roses to the present. Emphasis will be on political and institutional development and the role of Britain in the world, including the rise and decline of the British Empire.

story 345. American Constitutional History: Civil and Political Rights. **(S)(3)**
An examination of the influence of the Supreme Court with primary stress given to political and civil rights. Major consideration is the modern and Warren Supreme Court. (Even years only.)

story 351. Europe to 1713. **(F)(3)**
History of Europe from 1350 to 1713. Course will cover the Renaissance, the Reformation, the counter-Reformation, the decline of feudalism, the rise of secularism, and the origin and development of the national state. Focus will be on changes in thought and belief. (Even years only.)

story 352. Europe since 1713. **(S)(3)**
History of Europe from 1713 to the present. Course will cover the enlightenment, mercantilism, economic and imperial colonialism, domestic revolutions, the Napoleonic era, the industrial revolution, the Concert of Europe, major intellectual trends, and the world wars. Focus will be on political change. (Even years only.)

story 421. The Middle Period (1821-1850). **(S)(3)**
A detailed examination of Jackson, politics, and the culture of the period. Stress is placed on reform and the predominance of change in American life, and conflicting interpretations of the period. (Odd years only.)

story 446. History of Russia. **(Sum)(3)**
Russian history since 1689. Survey of the political and social changes in Russia from the time of Peter the Great to the present, including an extensive review of the origins and development of the modern Soviet state. (Even years only.)

History 470. Twentieth Century America. **(F)**
Selected topics on the nation's history since 1900, including the New Deal, Viet Nam, and W tergate. (Even years only.)

History 495. Independent Study. **(F,S,Sum)(1**

HISTORY AND POLITICAL SCIENCE

Requirements for a Major: Thirty semester hours divided as follows: eighteen semester hours history, including History 201, 202, and twelve additional hours of history at the 200 level or abo and twelve semester hours of political science, including Political Science 101. Majors must ta either History 300 (which counts toward the history requirement) or Behavioral Science 341 (whi counts toward the political science requirement). Military Science 202 may be counted toward t history requirement. Environmental Studies 313 may be counted toward the political science quirement.

POLITICAL SCIENCE

Requirements for a Minor: Twenty-one semester hours, including Behavioral Science 341 a Political Science 101. Environmental Studies 313 may count toward the minor.

Political Science 101. American National Government. **(F)**
A survey of the principal characteristics of the American National Government; examination constitutional principles, federalism, political participation, institutions of government, and t politics of public policy.

Political Science 231. International Politics. **(F)**
Basic historical, economic, and cultural factors in the international political system. The rise a development of Western nation-state systems; the foundations of national power; sovereign nationalism and imperialism; the development of international organizations and cooperation

Political Science 305. American Political Parties and Politics. **(F)**
The organization, functions, and practices of political parties in the United States, their metho of influencing public opinion, their role in nominations and elections, and their impact on popu government. (Even years only.)

Political Science 308. The American Presidency. **(F)**
Analysis of the institution of the presidency, its functions, formal and informal relationships, a its limitations within the American political system. (Odd years only.)

Political Science 461. Administrative Management. **(S)**
Methods of applying administrative principles to the operation of government agencies. Relevar of administrative theory to management procedures in government; the relation of policy f mation and implementation to the administrative policy system environment. (Odd years onl

PSYCHOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, P chology 111, 210, 352, 361 and 460.

Requirements for a Minor: Twenty-one semester hours including Behavioral Sciences 245, 3 Psychology 111, 210, and 361.

Psychology 111. Introduction to Psychology. **(F,S)**
Emphasis on the study of human behavior and the ability of the individual to make adjustme to his environment.

Psychology 201. Psychology of Personal Adjustment. **(S)**
Factors determining the development of personality, principles of mental health, and proble involved in the dynamics of human adjustment.

Psychology 210. Child Development. **(S)**
Emphasis on recent child development theories with laboratory experiences with children o one-to-one basis.

Psychology 330. Social Psychology. **(F)**
Major emphasis is on problems involved in human relations. Designed to help the individual understand and adjust to group thought and action. Attention is given to recent psychologi and sociological research in human relations.

Psychology 352. Abnormal Psychology. **(S)(3)**
Mental disorder, changing conceptions of normality, the more common forms of mental disorders, their psychological interpretation, principles of effective mental hygiene, and contemporary approaches to psychotherapy.

Psychology 361. Psychology of Learning. **(F)(3)**
Basic concepts and principles of learning with emphasis upon human and animal laboratory studies.

Psychology 402. Counseling Theories and Techniques. **(F)(3)**
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing. Permission of the instructor required.

Psychology 460. Theories of Personality. **(F)(3)**
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological and stimulus-response theories included.

Psychology 461. History and Systems of Psychology. **(on demand)(3)**
Origins of psychological thought within science and philosophy, tracing the development of systems and theories within German, British, and American psychology.

Psychology 470. Theories of Learning. **(S)(3)**
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories.

Psychology 495. Independent Study. **(F,S,Sum)(1-3)**

SOCIOLOGY

Requirements for a Major: Thirty semester hours, including Behavioral Sciences 245, 341, Sociology 131, 460. Psychology 330 is strongly recommended and will be credited toward the thirty semester hour requirement.

Requirements for a Minor: Twenty-one semester hours, including Behavioral Sciences 245, 341, Sociology 131. Psychology 330 is strongly recommended and will be credited toward the twenty-one semester hour requirement.

Appalachian Semester courses, Sociology 349 and 422, may count toward both the major and minor.

Sociology 131. Introduction to Sociology. **(F,S)(3)**
The social interaction of persons and groups; man's cultural heritage and social nature; analysis and principles of group life; forms of collective behavior; the process of socialization; social structure, interaction and reorganization, including race relations and social class; a variety of social institutions; the family, education, religion; the economy and politics; social change.

Sociology 241. Sociology of Appalachia. **(F,S)(3)**
Uses the basic principles and concepts of sociology to study life in the Appalachian region. The areas of study include socio-economic class, culture, folklore, social institutions, the family, religion, schooling, poverty, and development.

Sociology 251. Current Socio-Economic Problems. **(F)(3)**
Scientific understanding of social problems; problem areas in contemporary American society; types of personal disorders and role impairment; the influences of social change on the structure of society. Attention is also given to the question of why certain forms of deviance become defined as social problems.

Sociology 255. Selected Topics in Political Sociology. **(on demand)(3)**
A series of seminars and small group discussions organized around a set of case readings in the area.

Sociology 271. Marriage and the Family. **(F,S)(3)**
Background experiences in the lives of young people leading up to courtship and marriage; the establishment and functioning of the home, with related biological and social factors. Emphasis upon changing attitudes toward family relationships, some of the problems involved and suggested solutions.

Sociology 311. Human Ecology. **(S)(3)**
Population distribution, growth, composition, and its relevance to current economic, social, and political problems.

Sociology 353. Minority Groups. **(F)(3)**
A social scientific study of the origin and organization of minorities and their effect on society, with particular emphasis on minorities in the United States.

Sociology 371. Social Institutions. **(on demand)(3)**
An examination of the structure and function of social institutions, with primary orientation within the American milieu. Particular emphasis on socialization, stratification, social change, and relations among institutions.

Sociology 372. Social Stratification and Inequality. **(S)(3)**
An analysis of the social stratification system including the concepts of class, status, prestige, income, and wealth; and, the impact of social stratification on American society. (Odd years only.)

Sociology 387. Field Practicum in Sociology. **(on demand)(3)**
The field practicum in sociology is designed to give social science majors practical experience in a professional field related to sociology. Field placements will include such diverse experiences as working in the county clerk's office, pre-trial services, social services and other programs. *Prerequisites:* Behavioral Science 245, and either Anthropology 221, Psychology 111 or Sociology 131, and permission of the instructor.

Sociology 421. Rural and Urban Sociology. **(F)(3)**
Comparative and interrelated study of urban and rural life considering physical, institutional, social and economic factors of modern life in cities and in the countryside. (Even years only.)

Sociology 433. Social Change. **(F)(3)**
This course introduces students to the problems of development and change. Examples will be drawn from Third World models of development, nationalism, imperialism, environmentalism, and human rights. The course is interdisciplinary, with emphasis on historical, economic, environmental and sociological aspects. (Odd years only.)

Sociology 460. Sociological Theory. **(F)(3)**
The major theories which have proved useful in investigating the nature of society are examined as cultural products, ideologies, and scientific models. Special attention is given to major figures such as Comte, Durkheim, Weber, Merton, C. Wright Mills, White and Sorokin in the emergence and convergence of their theoretical development. Lecture and discussion in a seminar setting.

Sociology 464. Sociology of Deviance and Criminology. **(S)(3)**
This course will develop an understanding of the social definitions and implications of deviance. Various types of deviant behavior and relevant theories of society will be addressed. (Even years only.)

Sociology 495. Independent Study. **(on demand)(1-3)**

APPALACHIAN STUDIES

An interdisciplinary minor in Appalachian Studies is available to interested students. Courses involving the study of Appalachia may be found throughout this catalog.

Requirements for a Minor. Twenty-one semester hours chosen from the following: Behavioral Sciences 341 or History 300; Environmental Studies 313 and 469; Geography 241; History 233; and Sociology 241. Participation in the Appalachian Semester may also be counted toward a minor in Appalachian Studies.

APPALACHIAN SEMESTER

Tracy A. Campbell, *Coordinator*

The Appalachian Semester offers mature students a unique educational opportunity to devote their full time to studying the Appalachian region — its strengths, its problems and its challenges. The program's objectives are to promote in-depth awareness and understanding of life in Appalachia from an interdisciplinary area. This comprehensive academic program, which includes both classroom and field experience, provides 15 semester hours of credit in a variety of disciplines and offers the student the opportunity to become actively involved in a unique part of American society.

The following courses comprise the Appalachian Semester. Students must complete an application with the Coordinator prior to enrollment in this program.

Sociology 287. Appalachian Field Practicum/Research. **(F,S)(6)**
Each Appalachian Semester student, in consultation with the program coordinator, will develop a specialized field experience. This course may be either experiential learning in a service or institutional setting, or directed study on a regional topic. Academic credit is available in English, history, sociology, anthropology, psychology, or social work, and in other disciplines on a negotiated basis as necessary and feasible.

Sociology 345. Appalachian Semester Orientation Seminar. **(F,S)(3)**
A multidisciplinary introduction, within the context of regional unity and diversity, to mountain society, folk culture, literature, music, religion, ethnic groups, geography and history.

Sociology 349. Political Economy of Appalachia. **(F,S)(3)**
An analysis of the political economy of the Appalachian Region, e.g., settlement patterns; subsistence and commercial agriculture; timber, coal, textiles, and tourism; land ownership and land use; the corporate sector; taxation; government programs and planning; and issues of external and internal power relationships.

Sociology 422. Social Institutions in Appalachia. **(F,S)(3)**
A theoretical and observational analysis of the cultural and social characteristics of the Appalachian Region. Special emphasis will be given to the contemporary Appalachian culture and to the interaction of mountain people with the broader forces of social change at work in modern America.

Sociology 487. Appalachian Field Practicum/Research. **(F,S)(6)**
Each Appalachian Semester student, in consultation with the program coordinator, will develop a specialized field experience. This course may be either experiential learning in a service or institutional setting, or directed study on a regional topic. Academic credit is available in English, history, sociology, anthropology, psychology, or social work, and in other disciplines on a negotiated basis as necessary and feasible.

AREA IN SOCIAL STUDIES

An area of concentration in social studies consists of a minimum of forty-eight semester hours to include: a minimum of seven courses in history for a total of at least twenty-one semester hours with at least three courses in United States history, three courses in non-U.S. Western history, and one course in non-Western history. History courses numbered 381 and 481 are special topics courses that may count toward either the U.S. history or the non-U.S. Western history requirement depending on course content.

The remaining twenty-seven semester hours credit may be selected from certain courses in the areas of anthropology, economics, geography, political science, psychology, and sociology. Social studies subjects in which a student has completed nine or more semester hours shall be designated as concentration areas on the certificate.

Area concentrations are available in the fields of: economics, political science, psychology, and sociology. Students should consult with an advisor for all details and program requirements, and are responsible for meeting all social studies curriculum plan requirements.

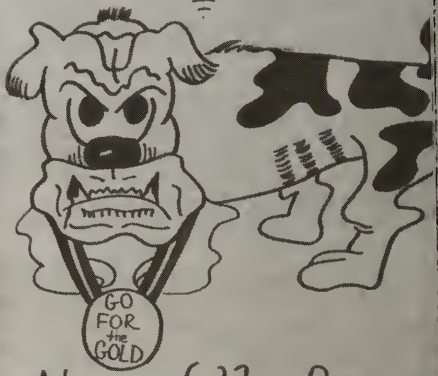
PRE-LAW

Most law school admissions committees require a student to have a four-year college program leading to the Bachelor of Arts or Bachelor of Science degree plus an acceptable score on the Law School Admissions Test. Regardless of the major, elective hours in accounting, business, history, political science, philosophy, and English prove helpful. Students should consult with a pre-law advisor no later than the junior year.

1ST ANNUAL SPRING OLYMPICS

WHEN: THURSDAY, APRIL 14TH
TIME: 3:00 P.M.
PLACE: PRACTICE FIELD

"Come Cheer Your Team On!"



Name of the Games

1. CENTIPEDE
2. PASS THE CUCUMBER
3. FOAM AND PEEL
4. ORANGE PASS
5. TUG-O-WAR
6. CARRY the WEASE
7. BALLOON TOSS
8. OBSTACLE COURSE
9. BUGGY OBSTACL

CAMPUS INFORMATION

Location, Campus and Buildings

Union College is located in Barbourville, a residential town of 3,500, on U.S. highway 25E midway between Lexington, Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. Cumberland Gap National Historical Park is thirty miles away. The Doctor Thomas Walker State Shrine is four miles from the campus and in adjoining counties are Cumberland Falls State Park, Levi Jackson State Park, and Pine Mountain State Park.

On one of the most picturesque campuses of the South, Union College is proud of its Georgian buildings. Shaded by overhanging elms, the red brick buildings give the campus a majestic charm of dignity and beauty.

Speed Hall, (Administration Building), 1897-1905. A gift from the estate of Mrs. Fanny Speed of Louisville, KY. Her bequest also partially financed Centennial Hall and Stevenson Hall.

Centennial Hall, (formerly the Classroom Building), 1907.

Stevenson Hall, Men's Dormitory, 1907; wings added 1957.

Dramatic Arts Center, (formerly Soldiers' and Sailors' Memorial Gymnasium), 1919, remodeled 1965.

Baldwin Place, the home of the President, 1925. The gift of Mr. and Mrs. F.E. Baldwin, Elmira, New York.

Maintenance Building, 1938, originally equipped by a gift from the estate of Robert Norton, New Albany, Indiana.

Abigail E. Weeks Memorial Library, 1941, originally furnished by a gift from Mrs. Abbie E. Stewart. Expanded, 1987.

Pfeiffer Hall, Women's Dormitory, 1942; wing added 1960. The original wing was a gift from the estate of Mr. and Mrs. Henry Pfeiffer, of New York City.

Conway Boatman Chapel and Fine Arts Building, 1949.

College Courts, residences for married students, 1954; expanded in 1964.

College Park Drive, 1960, faculty residential area.

Langford Apartments, 1962. Gifts from the estates of Miss Mary Kyle Dugan and Mrs. Mary Gilbert Langford in memory of Mr. and Mrs. George Langford. Housing for faculty and staff.

Physical Education Building, 1964, including the Swimming Pool, 1957.

Student Center, 1964.

Mahlon Miller Science Center, 1973.

Religious Life Center, 1975.

Publications

Union College Bulletin — An official quarterly bulletin, one issue of which is the catalog number. The bulletin is sent free on request.

Parent's Bulletin — A publication to inform parents of activities on campus.

Union Express — A newspaper published by the journalism program.

Union College Alumnus — A bulletin published by the Alumni office.

Stespean — The yearbook, published annually by a college student staff.

Union and You — A publication that combines the official calendar and institutional policies. This is the student handbook.

Pfeiffer Perspective — A handbook for residents of Pfeiffer Hall.

Stevenson Scenario — A handbook for residents of Stevenson Hall.

Student Organizations

Students have the opportunity of participating in and developing leadership through a number of campus organizations. Some of these are departmental, some are limited to honor students in their fields, many are open to all interested students. Each has a faculty sponsor and some include faculty in their membership. The following are official clubs and organizations as approved by the faculty of Union College. Campus organizations must file each year for sanction to operate and new organizations must apply to be recognized and sanctioned. The Dean of Students is the administrative contact for organizations and for their requests for funds from student activities monies.

Academic Team — An opportunity to participate in a multi-campus quick-recall league.

Alpha Psi Omega — A national honorary theatre fraternity. Union's Zeta Chi chapter serves to encourage participation in the college's theatrical activities and to develop larger and better informed theatre audiences.

Appalachian Wilderness Club — A group to explore the outdoors through hiking, camping, and caving.

Association for Cultural Enhancement — An organization seeking to promote cooperation, fellowship and solidarity among student groups with a special concern for the needs of minority students on the Union campus.

Baptist Student Union — An organization to promote a strong religious atmosphere on campus and to serve as a support group for all students.

BLTN (Better Late Than Never) — An organization seeking to provide information, social outlets, counseling, and emotional support for non-traditional students (those who have experienced a gap between their secondary education and college or an interruption in their college careers).

BBUCL (Book Busters of Union College Library) — An organization seeking to encourage greater use of the Union College Library.

Business Club — A business organization promoting scholastic achievement, service to the community, development of leadership potential, social interaction, and increased awareness of the business world.

Campus Activities Board — A student organization to plan and manage the primary campus activities calendar and its scheduled events. The Campus Activities Coordinator serves as the main advisor. The board is funded through the Student Activities Fee.

Commuter Council — An organization seeking to explore the needs, interests, and problems facing non-residential students. The Commuter Council seeks to plan and manage activities and services for non-residential students. The Dean of Students serves as advisor to this council.

Dog Pound — An organization to encourage school spirit; increase campus participation in Union athletic events; and create a spirit of unity among students, faculty, administration and staff.

Fellowship of Christian Athletes — An organization designed to promote athletic involvement and spiritual growth.

Gamma Beta Phi — A national honor society promoting scholarship, leadership, and good citizenship at Union College.

International Student Association — An organization to provide an environment where students from different countries/cultures can exchange ideas/views and develop enjoyable friendships.

Intramural Council — An organization serving to plan and manage an active broad-based and competent program of intramural leisure sports activities for the women and men of the campus. The Intramural Director serves as coordinator and advisor to the Intramural Council.

Iota Sigma Nu — An honor society to provide recognition for honor students by uniting them in an organization which encourages high ideals, promotes diligence in study, and rewards excellence in scholarship.

Modern Culture Study Club — A group whose purpose is to study modern culture with an emphasis on the dramatic arts, through group discussions, films, readings, and lectures.

National Education Association—Student Program (NEA-SP) — A national pre-professional organization for men and women planning to pursue teaching as a career.

Newman Club — An organization seeking to provide fellowship for Christian students, particularly for Catholic students on campus.

Oxford Club — An organization to provide a fellowship of service and study for Christian students of Union College, and to provide opportunities for those students to put their faith into action.

Phi Delta Kappa — An international professional fraternity for men and women in education.

Pizzazzers — Seeks to provide entertainment for college athletic and community events through dance team performances.

Stespean — Seeks to produce a college yearbook.

Student Government Association — Provides opportunities for students to experience campus government and to examine quality-of-life issues of the campus. Seeks to assure reasonable due process in campus living.

Union College Collegiate 4-H — Seeks to promote, exercise, maintain, and increase interest in 4-H, local through international levels.

Union College Science Society — An organization to stimulate interest in the natural sciences.

Union College Service Organization — An organization sponsored by Campus Ministry and supported by the Fellheimer Trust, which encourages and coordinates volunteer service on the campus and in the surrounding communities by students, faculty and staff.

Union College Singers — A vocal ensemble that performs in chapel, Christmas concert, spring concert, graduation, tours and festivals.

"Union Express" — Seeks to produce a campus newspaper.

Athletics

Union College is a member of the Kentucky Intercollegiate Athletic Conference (KIAC), the Mid-South Football Conference (MSFC), the Kentucky Women's Intercollegiate Conference (KWIC), and the National Association of Intercollegiate Athletics (NAIA). The college promotes athletics for physical development and as a vital part of the program of extra-curricular activities. The program emphasizes the protection of the best interests of the student athlete. Union teams are noted for "clean" sport and competitive spirit. Sport for fun and character building is fundamental. In intercollegiate competition for men, the College is represented by varsity teams in football, basketball, swimming, tennis, track, and baseball.

Women may participate on intercollegiate teams in swimming and track, and have earned places on varsity teams in these sports in recent years. Separate women's teams are active in basketball, tennis and softball and compete against women's teams from other colleges and universities in the area.

In addition to the varsity sports competition for men and women, Union sponsors both a varsity cheerleading squad and dance team called the Pizzazzers. Both squads are made up of men and women and perform at home football and basketball contests.

Union College sponsors intramural activities in touch football, basketball, free-throwing, badminton, softball, tennis and volleyball to have a "sports for all" program. The intramural organization is, in general, made-up of men and women's independent teams. The pr gram includes both team and individual sport No college credit is given for intramurals, b everyone is urged to take part.

Student Conduct

Each student is expected to conduct himself a all times according to the rules of good society This obligation includes compliance with Fe eral, State and local laws and adherence to co lege regulations. As members of a free society students are always free to peacefully and law fully petition for amendment or modificatio of the various laws as well as the college reg ulations. However, the rights of the studen body as a whole and the College as an insti tution of higher education supersede the right of any individual student or any group of stu dents. Accordingly, not in an attempt to stifl dissent, but rather to perpetuate an environ ment where the student may peacefully pursu his studies, actions which are disruptive to th normal functions and operations of the Colleg will not be tolerated. Students who are disor derly in conduct, or unmindful of the rights o others, may be required to withdraw from th College.

No student shall possess or use alcoholi beverages when on college property or wher away from the campus representing the Col lege in any way, i.e., as a participant or spec tator at a College athletic event or other colleg function. Any student violating this regulatio may be required to withdraw from the College.

Union College students are obliged to show discretion, good judgment, and strong respect for Christian principle in all interpersonal re lationships.

The sale, possession, or use of drugs or sub stances in violation of the Federal, State, or local laws is prohibited. Any student who il legally sells, possesses, or uses such drugs will be subject to criminal prosecution by the ap propriate law enforcement agencies and also may be suspended or expelled. It is the an nounced policy of Union College to cooperate fully with the various law enforcement officials in the enforcement of the drug laws as with all other laws. A student's lawful use and pos session of certain drugs prescribed by a qual ified medical practitioner such as a physician, dentist, or optometrist is, of course, permitted.

Firearms and explosives of any kind are forbidden in the residence halls or on the campus. tudents may be expelled for failure to abide y this rule.

Gambling in any form is strictly forbidden.

The complete Student Conduct Code is rinted in UNION AND YOU, the Student landbook. The Dean of Students serves as the hief discipline officer for student conduct for he College.

Union College expects good housekeeping rom all on-campus resident students. Resients who fail to keep their rooms in satisfacory condition will have their housing contract evoked. The College reserves the right to enter nd inspect the rooms of students at any time.

The academic conduct code is printed in NION AND YOU, the Student Handbook. he Vice President for Academic Affairs is the hief academic discipline officer for the Colge. The Student Code defining procedures or dealing with academic dishonesty can be btained in the office of the Vice President for cademic Affairs.

ocial Life

tudents are encouraged to accept every legitnate opportunity to engage in social funcons. The faculty emphasizes the value of wellirected social activities. Student organizaons, the faculty, and local churches make deirable contributions to the promotion of social fe. The Dean of Students, through the Camus Activities Coordinator, is responsible for he initiation and direction of a comprehensive rogram of student social and recreational acvities. All social functions are subject to the ules and regulations of the college.

utomobiles

utomobiles parked on campus must be regstered in the Business Office. All must display legible parking permit sticker. Stickers should e displayed in the rear window of the car on he driver's side. Cars should be parked in the ssigned lots as designated by the Business Ofice. Violation of parking regulations may reult in vehicles being ticketed or towed away t owner's expense. Parking for the handiapped is provided.

Health Service

Union College students may receive health service and advice from the County Health Office in Barbourville. Since the College does not have facilities for taking care of protracted illness, arrangements for hospitalization must be made by the student or his/her parents. When a physician is needed, the student may request the residence hall staff to call one; the fee is paid by the student. In case of emergency, the College reserves the right to employ a physician or to have a student hospitalized without consent of the parents. All full-time students are encouraged to secure coverage for an accident, sickness, and hospitalization plan if adequate insurance is not available through a family plan at home. All claims under a student's insurance plan are to be filed by the student and the attending physician and not by Union College.

The college does require that a student health service record be completed by a physician and placed on file with the College before beginning studies at Union.

Campus Housing

Stevenson Hall for men and Pfeiffer Hall for women are primarily double-occupancy facilities. A limited number of single/private rooms are available; preference for these rooms is granted by request to those students having earned the greatest number of credit hours. Twenty apartments are available for married students. All residents of Stevenson Hall, Pfeiffer Hall, and College Courts are required to sign housing contracts.

Students are expected to obey the terms of their housing contracts. A copy of this contract can be obtained in the office of the Dean of Students.

The residence halls are closed during vacation periods as specified in the academic calendar. Students will not be allowed to remain in the residence halls during vacations. Students will be required to turn in their keys during these stated vacation periods. Anyone failing to do so will be charged a lost key fee.

No student will be issued a room key, hallway, or outside door key unless he or she has

previously signed a housing contract. Keys must be returned by the last day of the term of this agreement or the student's use of the accommodations, whichever occurs first. Any student failing to return a room key and/or apartment key will be charged a ten dollar ($10.00) fee. A twenty-five dollar ($25.00) fee will be charged for loss of hallway or outside door key to cover the cost of changing the lock for the security of persons subsequently permitted the use of the accommodations.

All students twenty-one years or older, juniors or seniors (according to the Registrar's Office records), veterans, and married students are eligible to live off campus. Juniors and seniors under age twenty-one must submit written parental permission.

Religious Life

Union College takes seriously its identity as a church-related institution and is concerned that its students be made aware of the value of vital faith as well as academic excellence. We seek to be faithful to John Wesley's affirmation that a whole person is one who unites knowledge with vital piety.

Chapel worship services are held on campus weekly, are ecumenical in nature, and utilize the gifts and graces of the Chaplain, other clergy, faculty, and students. Students are given many opportunities to participate in Chapel services, prayer groups, Bible stud and other informal discussion groups and given ample opportunity and encouragem to grow in their understanding of the Christ faith. The Religious Life Center, in the hear the campus, provides a setting for infor worship, study, discussion, and group me ings.

The Chaplain and other community cle are available for pastoral counseling.

The Willson-Gross Lectures and the Sta Distinguished Christian Scholar Lectures se to bring outstanding speakers to the camp to discuss and provide information about t Christian faith. The Religious Life Committ composed of students, faculty, and staff, wo with the Chaplain as an advisory group to sure that religious life programs are appro ate to the needs of the students and the camp community.

Students are encouraged to worship reg larly in the church of their choice and to p ticipate in the various denominational a faith-oriented groups on campus and in t community.

Students are also encouraged to particip in community and world service projects whi develop during the year, such as World Hu ger needs, improvement of the quality of l in the Appalachian area, and community cycling.

ACADEMIC CALENDAR 1990-91

ummer, 1990 - First Session

Iay 28, Monday	Residence halls open for new students at 1:00 p.m.
	Memorial Day Holiday.
Iay 29, Tuesday	Advising and Registration.
	Late fee after this date.
	Students may register for both summer sessions.
	Placement tests - 9:00 a.m.
	First meal - Breakfast
	Classes begin on regular schedule.
Iay 31, Thursday	Last day for schedule changes.
	Last day to register for first summer session.
ne 13, Wednesday	Last day to elect credit/fail option.
	Last day to withdraw from a course with a grade of "W".
ne 25, Monday	Orientation and Advance Registration for fall semester for new students.
ne 29, Friday	Final Examinations.
	Students not registering for second summer session must check out of residence halls by 6:00 p.m.
	Last meal - Supper
ly 2, Monday	Final grades due by 12:00 noon.

ummer, 1990 - Second Session

ly 1, Sunday	Residence halls open for new students at 1:00 p.m.
ly 2, Monday	Advising and Registration.
	Late fee after this date.
	Classes begin on regular schedule.
	First meal - Breakfast
ly 4, Wednesday	Holiday
ly 6, Friday	Last day for schedule changes.
	Last day to register for second summer session.
ly 7, Saturday	Orientation and Advance Registration for fall semester for new students.
ly 18, Wednesday	Last day to elect credit/fail option.
	Last day to withdraw from a course with a grade of "W".
ly 30, Monday	Orientation and Advance Registration for fall semester for new students.
ugust 3, Friday	Final Examinations.
	Last meal - Supper
	Residence halls close at 6:00 p.m.
ugust 6, Monday	Final grades due by 12:00 noon.

ll Semester, 1990

ugust 8, Wednesday	Last day to finalize advance registration for fall semester.
ugust 23, Thursday	Meeting for new faculty members; 2:00 p.m.
ugust 24, Friday	Faculty Meeting/Orientation and Registration Information; 9:00 a.m. - 12:00 noon
	Division Meetings; 1:30 p.m.
ugust 26, Sunday	Residence halls open at 10:00 a.m.
	First meal — Lunch
ugust 27, Monday	ACT Residual - 8:00 a.m.
	Advising for upperclassmen and freshmen having completed Placement Tests
	Placement Tests — 12:30 p.m.
	Graduate Registration — 2:00-6:30 p.m.

August 28, Tuesday	Fall Orientation - 9:00 a.m. Registration for Fall Semester. Late fee after this date.
Autust 29, Wednesday	Classes begin.
September 3, Monday	Labor Day; no classes. Offices are closed in observance of Labor Day.
September 3 - 7	Constitutes the first week for refund purposes.
September 6, Thursday	All-School Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel. Last day for schedule changes. Last day to register for fall semester.
October 16 - 17	Mid-semester Examinations (classes meet on regular schedule).
October 18 - 19	No classes. Mid-semester grades due by 4:00 p.m. on October 18. Brunch and Supper only.
October 18 - 21	Mid-semester weekend; no classes. Residence halls remain open; food service available.
October 22, Monday	Classes resume.
October 29 - November 2	Counseling sessions with advisors. Classes meet on regular schedule.
November 14, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W" Advising and Advance Registration for spring semester.
November 20, Tuesday	Last meal — Supper
November 21, Wednesday	Residence halls close at 10:00 a.m.
November 21 - 25	Thanksgiving vacation; no classes. Offices close November 21 at 4:30 p.m. and re-open on November 26 at 8:00 a.m.
November 25, Sunday	Residence halls re-open at 1:00 p.m. First meal — Supper
November 26, Monday	Classes resume.
December 7, Friday	Last day to finalize advance registration for spring semester.
December 8, Saturday	Final Examinations for Saturday classes.
December 10, 11, & 12	Final Examinations.
December 12, Wednesday	Last meal — Supper
December 13, Thursday	Residence halls close at 10:00 a.m.
December 14, Friday	Final grades for fall semester are due by 12:00 noon. Offices close for Christmas Vacation at 4:30 p.m. and re-open on January 2, 1991 at 8:00 a.m. Workloads and scheduling may required that certain offices be open.

Spring Semester, 1991

January 2, Wednesday	Residence halls open at 1:00 p.m. First meal — Supper
January 3, Thursday	Academic Advising. Counseling and Orientation for new students. Placement tests for new students; 1:00 p.m. Graduate registration; 2:00-6:30 p.m.
January 4, Friday	Registration for spring semester. Late fee after this date.
January 7, Monday	Classes begin.
January 7 - 11	Constitutes the first week for refund purposes.
January 9, Wednesday	Last day for schedule changes. Last day to register for spring semester. Last day to apply for graduation.
January 17, Thursday	All-school Convocation (required attendance by all full-time students); 9:30 a.m. — Conway Boatman Chapel.
January 21, Monday	Martin Luther King Day; no classes. Offices are closed in observance of Martin Luther King Day.
February 27 -28	Mid-semester Examinations (classes meet on regular schedule).
February 28, Thursday	Last meal — Supper

March 1, Friday	Spring vacation begins; no classes. Residence halls close at 10:00 a.m. Mid-semester grades due by 4:00 p.m.
March 10, Sunday	Residence halls re-open at 1:00 p.m. First meal — Supper
March 11, Monday	Classes resume.
March 12 - 15	Counseling sessions with advisors. Classes meet on regular schedule.
March 21, Thursday	Assessment Day. Adjustment in class schedule.
March 29 - April 1	Easter vacation; no classes. Residence halls remain open; food service available. Brunch and Supper only. Offices close on March 28 at 4:30 p.m. and re-open on April 1 at 8:00 a.m. in observance of Easter Holiday.
April 2, Tuesday	Classes resume.
April 3, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
April 4, Thursday	Honors Convocation; 10:00 a.m. — Conway Boatman Chapel
April 11, Thursday	Advising and Advance Registration for May Interim, Summer Sessions and Fall Semester.
April 27, Saturday	Placement tests for new summer session students.
April 29, Monday	Last day to finalize advance registration for May Interim.
April 29, 30 & May 1	Final Examinations.
May 3, Friday	Final grades for spring semester are due by 12:00 noon. Baccalaureate; 7:00 p.m.
May 4, Saturday	Commencement; 10:00 a.m. Last meal — Brunch Students not registering for May Interim must check out of residence halls by 4:00 p.m.

May Interim, 1991

May 5, Sunday	Residence halls open for new students at 1:00 p.m.
May 6, Monday	First meal — Breakfast Registration for May Interim. Classes begin on regular schedule.
May 7, Tuesday	Last day to register for May Interim. Last day for schedule changes.
May 10, Friday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
May 20, Monday	Last day to finalize advance registration for first summer session.
May 24, Friday	Final Examinations. Students not registering for first summer session classes must check out of residence halls by 6:00 p.m. Last meal — Supper
May 27, Monday	Final grades due by 12:00 noon.

Summer, 1991 - First Session

May 27, Monday	Residence halls open for new students at 1:00 p.m. Memorial Day Holiday; no classes. Offices are closed in observance of Memorial Day.
May 28, Tuesday	Advising and Registration. Late fee after this date. Students may register for both summer sessions. Placement tests; 9:00 a.m. Classes begin on regular schedule. First meal — Breakfast
May 30, Thursday	Last day for schedule changes. Last day to register for first summer session.
June 12, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".

June 24, Monday	Orientation and Advance Registration for fall semester for new students.
June 28, Friday	Final Examinations. Students not registering for second summer session must check out of residence halls by 6:00 p.m. Last meal — Supper
July 1, Monday	Final grades due by 12:00 noon.

Summer, 1991 - Second Session

June 30, Sunday	Residence halls open for new students at 1:00 p.m.
July 1, Monday	Advising and Registration. Late fee after this date. Classes begin on regular schedule. First meal — Breakfast
July 4, Thursday	Independence Day; no classes. Offices are closed in observance of Independence Day. Brunch and Supper only.
July 5, Friday	Last day for schedule changes. Last day to register for second summer session.
July 13, Saturday	Orientation and Advance Registration for fall semester for new students.
July 17, Wednesday	Last day to elect credit/fail option. Last day to withdraw from a course with a grade of "W".
July 29, Monday	Orientation and Advance Registration for fall semester for new students.
August 2, Friday	Final Examinations. Last meal — Supper Residence halls close at 6:00 p.m.
August 5, Monday	Final grades due by 12:00 noon.

Residence halls will not close during the period from the end of Spring Semester through Summer II. Food service, however, will not be provided during the short periods between these terms.

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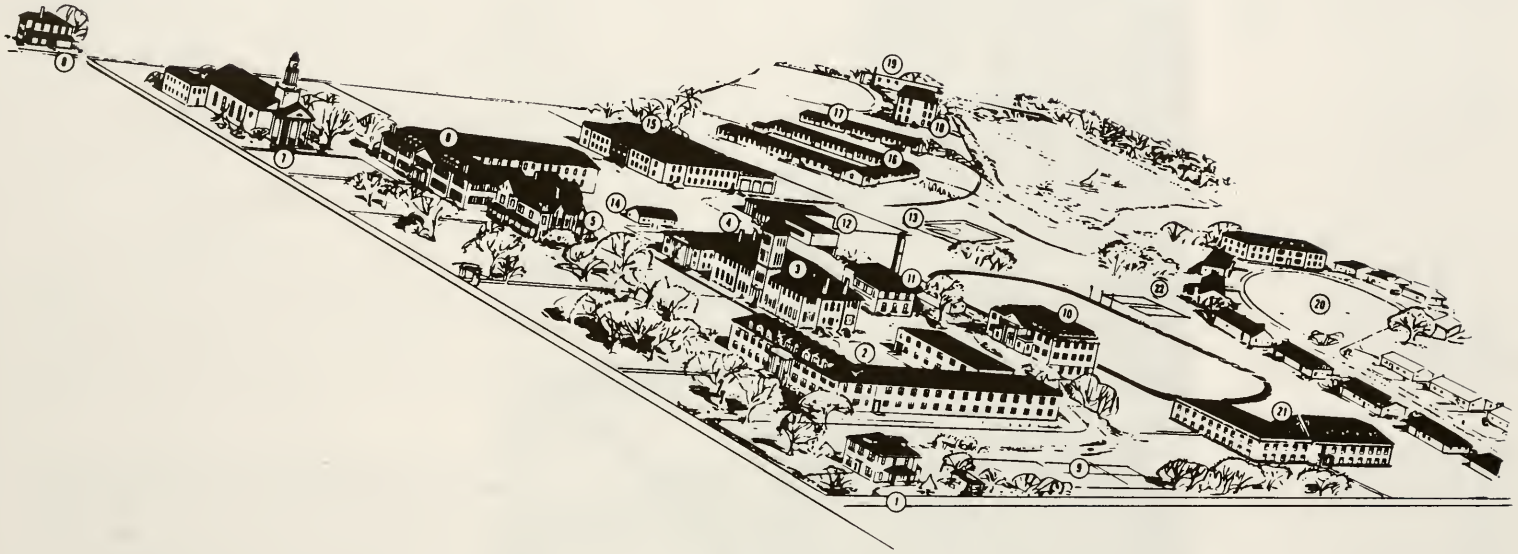

1. Baldwin Place, President's Residence
2. Stevenson Hall, Men's Residence
3. Centennial Hall
4. Library
5. Speed Hall, Administration Building
6. Pfeiffer Hall, Women's Residence
7. Conway Boatman Chapel–Fine Arts Building
8. Tye House
9. Tennis Courts
10. Memorial Gym
11. Data Processing
12. Student Center
13. Colonel Sanders Field
14. Religious Life Center
15. Physical Education Building and
16. College Courts, Married Students' Apartments
17. College Courts Addition
18. Lakeside Hall
19. Lakeside Center
20. College Park, Faculty Housing
21. Mahlon Miller Science Center
22. Tennis Courts

Catalog Disclaimer Statement

While this catalog was prepared on the basis of the best information available at the time of publication, all information – including statements of fees, course offerings, admissions and graduation requirements – is subject to change without notice or obligation.

Full-time students continuously enrolled at Union College ordinarily may expect to graduate under the requirements stipulated in the catalogue under which they entered. Students failing to enroll for a period longer than two consecutive semesters will fall under the catalog in effect when they return to full-time status. Students may appeal to the Vice President for Academic Affairs for exceptions to this policy.

The statements in this catalog are for information only and do not constitute a contract between the student and Union College. **Failure to read this bulletin does not excuse the student from the requirements and regulations described herein.**

NOTES

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Graduate Studies Program

1989-1991

Commitment to Excellence

Barbourville, Kentucky

UNION COLLEGE
1989-91 Graduate Catalog

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Admission Bulletins, Schedules ..... Dean of Graduate Academic Affairs
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Grants, Scholarships, Workshops and Loans ..... Director of Student Financial Aid
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TELEPHONE COMMUNICATION

A campus-wide network of telephones enables the caller to reach any administrative, staff or faculty office by dialing the central switchboard.

Central Switchboard ..... (606) 546-4151
Counselor, Pfeiffer Hall (Women's Residence) ..... (606) 546-3421
Counselor, Stevenson Hall (Men's Residence) ..... (606) 546-3659

Union College is accredited by the Southern Association of Colleges and Schools and by the Kentucky State Department of Education, and is approved by the University Senate of the Methodist Church.

It is the policy of Union College not to discriminate on the basis of sex, race, color, handicap, or national and ethnic origin in the admission of students or in its administration of educational programs, scholarships, loan programs, athletic participation, or other school-administered programs.

The college reserves the right to modify or change the curriculum, admission standards, course content, degree requirements, regulations, tuition or fees at any time without prior notice. The information in this catalog is not to be regarded as creating a binding contract between the student and the School.

DR. JACK C. PHILLIPS

Welcome to Union College

We welcome and invite you to examine the Graduate Studies Program of Union College. Founded 1879 by Barbourville citizens and purchased in 1886 by the Methodist Church, Union has as its chief ssion, service to the Appalachian area of Southeastern Kentucky, Eastern Tennessee, and Southwest- ı Virginia.

With an enrollment of more than 1,000, including both graduate and undergraduate students, ıion College is committed to academic excellence. The College offers the Bachelor of Arts, the Bachelor Science, the Master of Arts in Education degrees, and Rank I Program, along with Associate of Arts grees and several one- and two-year programs.

Located on the historic Wilderness Road, Union is the first College in this tri-state area. There are w over 8,000 graduates, with over 3,000 having the Master of Arts in Education degree.

We are pleased that you are interested in our graduate program and as you peruse these pages, we ve you will like what you see. Should you wish to enter our College, we believe your experience will a profitable and happy one.

Sincerely,

Jack C. Phillips
President

History of Union College

Union College was founded in 1879 by a group of progressive citizens of Barbourvill who formed a stock company and secured the main part of the present campus. In 1880, th first building was formally opened on the site of what is now known as Centennial Hall.

The college was purchased by the Kentucky Conference of the Methodist Episcopa Church in 1886, and Daniel Stevenson was elected president of the reorganized institutio A major bequest from Mrs. Fanny Speed led to the construction of Speed Hall, Stevenson Hal and Centennial Hall.

The college department was discontinued in 1908, and for eight years the institutio was maintained as a junior college, an academy, and an elementary school. It became *bona fide* college again in the presidency of Ezra T. Franklin, who inaugurated a progra of development during which the Memorial Gymnasium and a home for the presiden were built. In 1927, the college was accredited by the University of Kentucky as a grade four-year college.

President John O. Gross emphasized the improvement of the curriculum and th building of a strong faculty. In 1931, Union College was accredited by the University Senat of the Methodist Episcopal Church, and, in 1932, full accreditation was realized when it wa made a member of the Southern Association of Colleges and Schools. The Board of Regent of the University of the State of New York placed Union on its accredited list in 1937.

In Conway Boatman's twenty-one years of leadership, the college achieved substantia progress in both its educational and plant improvement. Seven new buildings were com pleted and others were enlarged. The curriculum was expanded and endowment funds wer increased.

Mahlon A. Miller was elected to the presidency in 1959 and served in this capacity unti 1982. In 1960, a Master of Arts in Education degree program was introduced and plan expansion continued with the development of College Park, a faculty residential area followed by the construction of additional student housing, a physical education building and a student center. A science center was completed in 1973.

In response to the needs of graduate students, the college began to offer graduate classe in other communities in 1973. This program has since expanded to provide in-service teach ers with extension courses in twelve or more communities throughout the region.

In 1975, the college initiated the Specialist in Education degree (Ed.S.) and Kentuck Rank I certification with the administrator's certificate. After seven years, the Ed.S. progra was phased out; however, the Rank I program has continued to grow.

In 1979, Union celebrated its centennial year. A centennial campaign provided funds t renovate the Classroom building which was then re-named Centennial Hall.

In January of 1983, Jack C. Phillips became the 15th president of Union College. Unde Dr. Phillips' leadership, a new $1.4-million library addition has been completed; intercollegiat football has been reinstated; and a new stadium and physical education annex/weight roo have been added.

The college has always accepted a special mission to Appalachia, a commitment that i strengthened with unique academic programs based on regional characteristics, expande student financial aid, student community service projects, and new career-oriented curricula As the college moves into its second century, it is expanding and enriching its service t Appalachia while at the same time fulfilling the needs of the many students from other state and other countries who come to Union College for an education.

Graduate Studies Program

Purpose and Objectives

In 1990, the graduate studies program at Union College begins its fourth decade of operation. Following is a summary of the purposes, objectives, and long-range goals of the program.

Purpose

The Union College graduate studies program is designed primarily for in-service teachers in the mid-Appalachian region of Kentucky, Tennessee, and Virginia, although students are attracted from states ranging from New York to Florida and a few foreign countries.

Major factors which draw these students include a flexible program which fits the work schedule of teachers, a competent and dedicated faculty, a variety of areas of emphasis, and the individual attention available to each graduate student. A limited number of persons who do not have teaching or administrative certification enroll in the graduate studies program to broaden their background and their knowledge.

Rank II and Rank I programs which meet Kentucky certification standards for professional advancement are available as well as the traditional degree of Master of Arts in Education.

Objectives:

(1) To prepare teachers and school leaders for greater service through extension of those fields of study which result in improved classroom instruction, informed administration, and human understanding.
(2) To provide graduate study for those who seek an advanced degree beyond the baccalaureate program.
(3) To encourage the attainment of excellence in scholarship, the acquisition of special skills in the field of education, and to develop a sense of obligation to contribute to the intellectual, cultural, and economic growth of the community.
(4) To prepare students to think critically, to express themselves creatively, and to make independent and rational judgments.

Long-Range Goals:

(1) To extend course offerings to meet identified needs of classroom teachers, administrators, and other school personnel.
(2) To analyze and evaluate course objectives and content annually.
(3) To make a continuous effort to improve admission and exit criteria for students.
(4) To improve and up-grade library holdings.
(5) To provide improved means for students to acquire reference materials in off-campus classes.
(6) To promote seminars to provide graduate faculty members with opportunities to discuss issues and trends in education, up-grade instructional delivery systems, and review new materials and equipment.
(7) To provide a continuous opportunity for faculty development.
(8) To maintain a close working relationship with public school officials in the area served by the graduate program.

Graduate Academic Calendar, 1989-1990

Fall Semester, 1989 (September 7 - December 15)

Aug.	16	Wednesday. Last day to finalize advance registration for Fall Semester.
Sept.	4	Monday. Labor Day. College Holiday.
	5	Tuesday. Registration for Fall Semester. Hours: 2:00 - 6:30 p.m.
	6	Wednesday. Registration continues. Hours: 9:00 a.m. - 4:30 p.m.
	7	Thursday. Classes begin. Last day to submit application for Independent Study.
	11-15	Monday-Friday. First week for refund purposes.
	15	Friday. Last day to register for Fall Semester or change schedule. Must be completed before the second class meeting.
	23	Saturday. Orientation for the M.A. Comprehensive Examination. 10:00 a.m.
Oct.	14	Saturday. Written exercise required for M.A. and Fifth-Year candidacy. 10:00 a.m.
	28	Saturday. NTE - Core Battery. 8:00 - 5:00 p.m.
Nov.	11	Saturday. NTE - Specialty Area. 8:00 - 11:30 a.m.
	21	Tuesday. Last day to withdraw from a course with a grade of "W".
	21	Tuesday. Graduate Advisory Council Luncheon. 10:45 a.m.
	22-26	Wednesday-Sunday. Thanksgiving. College Holidays.
Dec.	2	Saturday. M.A. Comprehensive Examination. 8:00 a.m. - 12:00 p.m.
	9	Saturday. Final examinations for Saturday classes.
	11-14	Monday-Thursday. Final examinations for Fall Semester.
	15	Friday. Fall Semester ends.

Spring Semester, 1990 (January 8 - May 5)

Dec.	8	Friday. Last day to finalize advance registration for Spring Semester.
Jan.	4	Thursday. Graduate registration. Hours: 2:00 - 6:30 p.m.
	5	Friday. Registration continues. Hours: 9:00 a.m. - 4:30 p.m.
	8	Monday. Classes begin. Last day to submit application for Independent Study.
	8-12	Monday-Friday. First week for refund purposes.
	10	Wednesday. Last day to register for Spring Semester or change schedule. Last day to apply for graduation.
	18	Thursday. All-school convocation. 9:30 a.m. Conway Boatman Chapel.
Mar.	2	Friday. Spring vacation begins. No classes.
	2-11	Friday-Sunday. Spring vacation.
	3	Saturday. NTE - Core Battery. 8:00 a.m. - 5:00 p.m.
	22	Thursday. College Assessment Day. Adjustment in class schedule.
	24	Saturday. NTE - Specialty Area. 8:00 - 11:30 a.m.

Apr.	**4**	Wednesday. Last day to withdraw from a course with a grade of "W".
	28	Saturday. Final examinations for Saturday classes.
Apr. 30-May	**2**	Monday-Wednesday. Final examinations for Spring Semester.
May	**5**	Saturday. Commencement. 10:00 a.m.

May Interim, 1990 (May 6 - 25)

Apr.	**30**	Monday. Last day to finalize advance registration for May Interim.
May	**7**	Monday. Registration. Hours: 9:00 a.m. - 4:30 p.m. Classes begin on regular schedule.
	8	Tuesday. Last day to register for May Interim. Last day for schedule changes.
	11	Friday. Last day to withdraw from a course with a grade of "W".
	25	Friday. Final examinations.

First Summer Session, 1990 (May 29 - June 29)

May	**21**	Monday. Last day to finalize advance registration for First Summer Session.
	28	Monday. Memorial Day. College Holiday.
	29	Tuesday. Registration for Summer Sessions I and II. Late registration fee after this date. Classes begin on regular schedule.
	31	Thursday. Last day for schedule changes. Last day to register for First Summer Session.
June	**13**	Wednesday. Last day to withdraw from a course with a grade of "W".
	29	Friday. Final examinations.

Second Summer Session, 1990 (July 2 - August 3)

June	**25**	Monday. Last day to finalize advance registration for Second Summer Session.
July	**2**	Monday. Registration for Second Session. Late registration fee after this date. Classes begin on regular schedule.
	4	Wednesday. Independence Day. College Holiday.
	6	Friday. Last day for schedule changes.
	18	Wednesday. Last day to withdraw from a course with a grade of "W".
Aug.	**3**	Friday. Final examinations.

The calendar for the 1990-1991 academic year will be available in January, 1990.

1989

JULY

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General Information

Location of the College

Union College is located in Barbourville, a residential town of 3,500, on U.S. Highway 25E, midway between Lexington, Kentucky, and Knoxville, Tennessee. The historic Wilderness Road runs along the eastern edge of the campus. The Doctor Thomas Walker State Park is four miles from the campus and in adjoining counties are the Cumberland Falls State Park, the Levi Jackson State Park, and the Pine Mountain State Park.

Graduate students may enroll for a portion of their work in courses offered in off-campus centers in a number of nearby communities.

Library and Learning Resource Center

The Abigail E. Weeks Memorial Library houses a collection of approximately 80,000 books and other materials in a newly expanded facility. More than 350 periodicals are regularly received, along with indexing services to facilitate their use. The stacks are open for use by all students. A variety of study spaces provides seating for over 300 students, some in rooms designed for group study. The Library staff places first priority on helping students use both the materials and the equipment.

The College's library contains several specialized collections. There is a special collection of over 1,000 volumes devoted to Abraham Lincoln and the Civil War. The Library is also a selective depository for U.S. government publications. In addition, there is a Curriculum Center for education majors, a Music Library with a collection of more than 3,500 recordings and musical scores, and a Science Library.

The Learning Resource Center is housed within the Library and supplements the printed materials of the Library with a broad range of non-print media. These include slides, audiotapes, videotapes, filmstrips, kits, and computer software. The LRC provides educational materials for classroom use and individualized study. The LRC staff offers individual and group instruction to students and faculty in the use of equipment and materials.

Center for Economic Education

The Center for Economic Education is located in Centennial Hall. As a member of th Kentucky Council on Economic Education (KCEE) and its national parent organization, th Joint Council on Economic Education (JCEE), Union College maintains this Resource Cente for teachers in all grades. This is a repository for free materials which teachers can use in thei classrooms.

Some examples of materials in the Center are simple computer programs whicl primary grade students can use to learn to count money; videotapes for use by high schoo students, for the gifted and talented students. A wide variety of written publications is als accessible.

Materials in the Center are available to any teacher requesting them.

Computer Facilities

The College has a variety of computers available for student and faculty use, includin an HP-3000 minicomputer, an AT&T super-microcomputer, and numerous microcompute systems. The AT&T computer is connected to BITNET through a cooperative agreement wit the University of Kentucky.

Two microcomputer laboratories on campus are used for instruction and are availabl for student and faculty use when not being used for classes. One is located in the Mahlo Miller Science Center and contains seven Apple IIe's and a terminal to the AT&T system. Th other is in Centennial Hall and contains 12 Radio Shack microcomputers, a Macintos microcomputer, 16 IBM-compatible microcomputers, and six terminals connected to the H minicomputer; most of the microcomputers are connected to either the HP or the AT& system. This laboratory is operated by the Computer Information Systems Program and i staffed by student laboratory assistants. The lab is open for general use approximately thirt hours each week. This laboratory is equipped with a wide variety of software. Commercia statistical packages are available for student use on the minicomputer and the IBM com patibles. In addition, word processors, spreadsheets, data bases, graphics packages, an educational software packages are available for the Apple IIe, TRS-80, IBM compatibles, an Macintosh.

The Computer Information Systems Program also operates the academic HP minicom puter and the AT&T system. CIS majors have the opportunity to gain hands-on experience i the operation of the systems. In addition, the CIS Program has an 80386 microcompute system for use in upper division CIS classes; on this system, students in systems analysis an design classes will use the CASE tool Excelerator, and students in the operating system course will use UNIX.

Additional microcomputers are available for use in other areas. A Macintosh and a Apple IIGS are used in the Learning Lab for tutoring and remedial instruction. A Macintos is used by the Journalism Program in the production of the student newspaper and yearboo and in the teaching of Journalism classes. An IBM PTS is used in the Office Administratio classes. An Apple IIGS is used by the Music Department in the teaching of its classes, an Apple IIe's are available for use in the various science laboratories.

Most administrative offices use microcomputers connected to the College's administra tive minicomputer.

Campus Activities

Student activity fees are not required of graduate students; however, graduate assis tants, graduate students living on campus, and those residing near the campus are encou aged to take part in social and cultural functions of the college. Concerts, dances, speci

speakers, drama productions, movies, and athletic events are available through the purchase of a student activity ticket each semester.

Registration

Students seeking course credit must be admitted by the Graduate office. For details, please refer to the section on **Admissions.** Former Union College graduate students who have not been in attendance during the past year must apply for readmission and update their records in the Graduate office.

Course registration enrollment may be completed on campus or by mail during the period of advance registration, using forms obtainable in the Graduate office. After this period, registration must be completed *in person.* There is no registration or change of program by phone.

Whenever the course enrollment has been entered on the computer registration system, the student is responsible for payment of assessed charges unless a change-of-program form or a letter requesting withdrawal is submitted to the Registrar within the dates listed in the Academic Calendar.

Change of Program or Withdrawal

Notice of *any changes in the student's initial computer registration program* or of *total withdrawal* from the college, ***must be given to the office of the Registrar in writing.*** Upon request, the Registrar will provide change forms which should be approved by the major advisor and filed in the Registrar's office. Deadlines for changes are given in the Academic Calendar.

Attendance

Students are expected to attend all classes for which they are registered and are responsible for absences incurred by late enrollment. Students should avoid registering for courses which meet at times which conflict with anticipated teaching, administrative, coaching, or other duties at their respective schools or places of employment.

Inclement Weather Policy

Whenever weather conditions necessitate the cancellation of classes, a decision will be made as early as possible so that radio and television stations can notify listeners in their areas. Should the situation change during the day the Graduate office will get the word out to faculty members and students by whatever means seem most appropriate. Attempting to phone the Graduate office will overload the college switchboard and result in delay and frustration. Often phone networks can be set up at the beginning of the term by individual classes.

Unless notification is made as indicated above, normal class schedules will be maintained.

Application for Graduation

Application for graduation should be made in the office of the Registrar according to the following schedule. Students planning to complete all requirements for the May commencement should make application at the beginning of the prior fall semester. Those planning to finish during the summer terms should make application at the beginning of the spring semester. Those completing all degree requirements during the fall semester may participate in the following May commencement.

Students who complete all requirements in the spring or summer term may participate

in the May commencement. Those failing to participate are required to pay an absentia fee (see fee under financial information).

M.A. and Fifth-Year students who earn a 4.0 grade point average are recognized at commencement with a bronze Medallion. Students completing Rank I are awarded a certificate signifying completion of a sixth year program. Directed Field Projects required of all Rank I students, judged to have exceptional merit, are recognized by bronze Medallions.

Transcripts

The college regards the student's transcript as a personal and private document; it is released only on the *written authorization* of the student and payment of the required fee. Requests for transcripts should be made directly to the office of the Registrar, and should include the full name, social security number, and dates of attendance. Married women should also add the maiden name for identification. Information as to the use to be made of the transcript and date it is needed will be helpful. When official transcripts are sent directly to the student, they are stamped "Issued to Student." Financial obligations to the college must be cleared before a transcript is issued. Each student is entitled to one free transcript; a $3.00 fee is charged for each additional transcript.

Automobiles – Parking

The college maintains paved parking lots for the use of commuting and resident students. Automobiles parked on campus must be registered in the Business office and must display an official Union College parking permit on the rear window on the driver's side. This applies to part-time as well as full-time students. Permits may be obtained free of charge in the Business Office. Cars must be parked in designated areas only. The parking areas in the interior section of the campus adjacent to Centennial Hall and the Maintenance Building are restricted to delivery/service and motor pool vehicles, handicapped parking, and other authorized vehicles. City police enforce the no-parking regulation on College Street in front of the campus. Violation of campus parking regulations may result in fines charged against the student's account or in towing at the owner's expense. Parking for the handicapped is provided.

Placement Services

The Career Planning and Placement Office offers assistance to current students and alumni in securing positions relative to their background, interests, and qualifications. The office offers guidance in career planning and practical assistance in developing placement files, including resumés and letters of application.

All alumni and current students enrolled in degree or certification programs are eligible to register. Registration is neither automatic nor compulsory; it must be initiated by the individual. There is no charge for registration.

Students are advised to develop a placement file while they are in attendance at the College, when they can readily obtain references from faculty members. Files of inactive registrants are retained in storage for future use. Inactive registrants may add references at any time and may have their credentials forwarded to prospective employers.

The office is located in Room 104 in Centennial Hall.

Bookstore

The Bulldog Bookstore is located on the lower level of the Student Center. Regular

semester hours are 9:00 a.m. to 4:30 p.m., Monday through Friday, with extended hours during registration periods. Summer hours may be shorter. The bookstore stocks textbooks, materials and supplies, clothing, and a variety of gift items. Textbook refund periods and buy-back policies are posted.

Housing and Food Service

Full-time graduate students may elect to live on campus or obtain their own facilities in the community. Residence Hall rooms are available and may be obtained through contact with Dean of Students. All students living in the residence halls are required to obtain a boarding ticket and eat in the college dining hall.

A limited number of one-bedroom apartments are available for students with not more than one child. Pets are not allowed. Applications for apartments should be made in advance with the Dean of Students.

The college dining room is located on the lower level of Centennial Hall. All meals are served cafeteria style. Hours of operation and meal prices are posted in the dining room. Commuting students are welcome in the dining room and may purchase individual meal tickets at the door. A snack bar is located on the lower level of the Student Center.

Married Student Apartments

Financial Information

The academic year includes two fifteen-week semesters, a three-week May interim session, and two five-week summer sessions. Below are applicable charges and fees.

Regular Semester Expenses

Tuition, per semester hour (less than 12 semester hours)	$ 120
Tuition, full time (12 or more semester hours)	2,460
Room and board (19-meal week)	1,160
Private room (additional)	105
Married student apartment (per month, including utilities)	150
Activity fee (full-time students)	25

Summer Session Expenses

Tuition, per semester hour	120
Room and board (19-meal week)	360
Room and board (15-meal week)	305
Private room (additional)	30

May Interim Expenses

Tuition, per semester hour	120
Room and board (19-meal week)	220
Private room (additional)	20

Fees

Admission application fee	15
Late registration fee	15
Graduation fee (payable by M.A. and Fifth-Year graduates)	35
Graduation-in-absentia fee (payable in addition to the graduation fee by graduating students not attending commencement exercises)	25
Audit fee, per semester hour	15
M.A. Comprehensive Examination fee	5
Transcript (per copy, after first free copy)	3

Room and board charges are prorated for courses with irregular time schedules.

Fees and other expenses to be paid by students, as listed above and elsewhere in this catalog, are reviewed periodically and are subject to change. Charges are announced in class schedules and through the media.

Payment Policy

Financial Clearance

A student will be cleared for registration only if any previous balance has been paid. The new semester's account must then be paid in full, or a signed payment plan and first installment completed. Summer school and short sessions must be paid in full at the date of registration — no payment plan is permitted for summer or short sessions.

Authorized financial aid will be credited to the student's account and a payment plan set up for the balance. In case the financial aid is anticipated but not yet authorized, the student must pay as a first installment one-third of the *total* costs.

A student having any unpaid balance will not be cleared for the release of an official report of grades, a transcript of credits, or a diploma.

Finance Charge

A monthly finance charge of one and a half percent (19.5% annual rate) will be added to the unpaid balance on all student accounts at noon on the last working day of each month.

Payment Plan

If the new semester's account cannot be paid before registration, a payment plan can be completed and a first installment paid down. The payment plan requires one-third payment on each of the following dates after which the student may be withdrawn from courses if the account is not paid up:

(1) On or before fall semester or spring semester registration — one-third.

(2) Due October 5th (fall semester) or February 5th (spring semester) — one-third.

(3) Due November 5th (fall semester) or March 5th (spring semester) — one-third + 1 1/2% finance charge on the balance.

Any student who owes a balance on his or her account after November 15th (fall) or March 15th (spring) may be subject to withdrawal procedures.

Refund Information

Since faculty contracts and other commitments are made by the College for the entire year in advance, the following refund schedule has been established in order that the College and the student may share the loss equitably when it is necessary for a student to withdraw or make a change in his or her program.

(1) A student is considered to be enrolled until he or she completes drop/withdrawal procedures. These procedures must be completed in person or by mail. Necessary forms must be obtained from the Office of the Registrar. All refunds will be based on the date these drop/withdrawal forms are completed and returned to the Office of the Registrar.

(2) A full refund may be obtained for a class only if a student has not attended beyond the first session and completes drop/withdrawal procedures with the Office of the Registrar.

(3) Any portion of board charges unused up to date of withdrawal will be refunded, except that a full week's board will be charged for any fraction of a week.

(4) Tuition and room charges will be refunded on the following basis:

Regular Semester — Twenty percent of the total for tuition and room will be charged the first week, 40% the second week, 60% the third week, 80% the fourth week. No refund will be given after the fourth week. Any part of a week will be treated as a full week. Refund is based on the tuition charges less $10 student center allocation, $1 class dues, $1 student senate fee, $3 for I.D. card, and $25 activity fee.

Summer and Short Terms — Withdrawal up to the end of the first week will permit a 50 percent refund. No refund will be made after the end of the first week. Any part of a week will be treated as a full week.

(5) **Refund of Overpayment on Student Account** — If a student makes an overpayment on his or her account, a written request for refund must be submitted to the Business Office within one year after the end of the last academic term for which the student was enrolled.

(6) **Room Reservation Deposit** — This deposit will be refunded if the request is made in writing not later than August 1 for the fall semester or 30 days before the opening of any other semester for which the contract is first effective. Students, once enrolled, must submit a written request to the Dean of Students at least 30 days before the end of the term, for cancellation of the contract. This deposit will be refunded within 60 days upon receipt of written authorization by the Dean of Students indicating that the depositor is no longer enrolled as a student at Union College and that he or she has left the housing facility undamaged and does not owe other bills. The request for this authorization must be made within one year after the end of the academic term for which the student was enrolled.

Financial Assistance

Limited financial aid and work-study opportunities are available to graduate students who demonstrate financial need. All students must demonstrate need by filing a Financial Aid Form (FAF) for any type of financial assistance. The Financial Aid Office can supply the necessary application forms. Application should be made two months prior to enrollment.

Perkins Loans (formerly National Direct Student Loans) are available to full-time graduate students, (12 semester hours or more, who demonstrate need). The interest rate is 5% and repayment begins six months after the student graduates or drops below six hours enrollment.

Stafford Loans are available also after filing the FAF through banks in a student's home state. The interest rate is 8% with a 6-month grace period following less than half-time (6 hours) enrollment.

Students eligible for Veteran's Benefits should contact the Registrar for information concerning procedures required to receive those benefits.

Admissions

Admission to the Graduate Studies Program

General Requirements

Applicants for admission to the Graduate Studies Program may enter at the beginning of each academic semester, interim, or summer session.

Admission to graduate study does *not* imply admission to *candidacy* for the Master's Degree or Fifth-Year Certificate.

For admission as a regular graduate student an applicant must have completed requirements for a Bachelor's Degree at an accredited institution with a grade point average (GPA) of 2.5* or better. In addition to completing the *general application*, the applicant must arrange for the graduate office to receive:

1. **Application Fee.** Payment of the non-refundable $15 application fee.
2. **Transcripts.** Two *official* transcripts of *all* undergraduate and *all* graduate work completed must be sent directly to the Graduate office by the institutions where the credits and degrees were earned. If the transcript from the last institution indicates the former work taken by the applicant, including grades received, only that transcript is required.
3. **References.** At least two letters of reference are required from individuals who can attest to the applicant's academic and/or professional capabilities. Forms may be obtained in the Graduate Office.
4. **Teaching Certificate.** A copy of a valid teacher's certificate indicating areas in which the applicant is qualified.

*All grade point averages in this catalog are based on a four-point scale.

Fifth-Year Certification Program

In addition to the above general requirements, students applying for admission to a fifth-year program must provide official evidence of the completion of an initial teacher certification program.

Master of Arts in Education Degree Program

The requirements for admission to the Master of Arts in Education Degree Program are the same as those specified in "General Requirements" above, with the following addition:

The undergraduate transcript should indicate that a minor of 21 semester hours has been completed in the field of teaching desired in the student's Master's Degree Program. If this condition is not met, the student may be admitted conditionally.

In order to qualify for full admission, the student may need to complete the deficient undergraduate course work in addition to the graduate level courses prescribed for the M.A. degree.

Rank I Program

Applicants for admission to a program leading to the awarding of a Rank I classification must have completed requirements for the M.A. in Education Degree or the Fifth-Year Certificate. A GPA of 3.0 is necessary for unconditional admission to the program.

Elementary school teachers who have earned the Fifth-Year Certificate, but do not possess a Master's Degree in Education are not eligible for admission to certification programs in administration or supervision.

Uncertified Admission

A limited number of students who do not possess teaching certificates may be admitted to the Graduate Program for the primary purpose of improving their academic background. Ultimately, these applicants may obtain certification, provided they complete all of the course work and student teaching specified for the desired teaching certificate.

Conditional Admission

Applicants with GPA below the minimums specified for these programs may be approved as "conditional admissions." In such cases, the students must prove their ability to earn at least 3.0 GPA upon completion of the first 12 semester hours of graduate credit. Failure to achieve the 3.0 GPA level within the allowable 12 hours shall result in the recommendation that the student withdraw from the Program.

Admission to Candidacy

Admission to any program leading to the Master's degree or Fifth-Year Certificate is not equivalent to admission to *candidacy* for the Master's degree or Fifth-Year Certificate. Students must file an application for admission to candidacy for the M.A. or Fifth-Year Certificate before being permitted to register for courses beyond twelve semester hours.

Admission to candidacy for the Master's and for the Fifth-Year Certificate requires formal application to the Office of Graduate Academic Affairs and approval of the Graduate Council. The application is available in the Office of Graduate Academic Affairs and must be filed when the student has:

(1) Shown an aptitude for graduate study by the completion of 12 semester hours of graduate work with a grade point average of at least 2.5 for the Fifth-Year or 3.0 for the Master's degree.

(2) Satisfied any deficiency in oral or written English that has been reported by a member of the faculty.

(3) Successfully prepared a written exercise administered by the Office of Graduate Academic Affairs. The exercise will require each student to compose an essay on a topic drawn from choices provided by the Department of English. The essay will be rated on three criteria: (a) content, (b) structure, (c) style.

Students enrolling in the graduate program after September 1, 1985, must fulfill this requirement before completing 12 semester hours of graduate credit. Complete details may be obtained from the Office of Graduate Academic Affairs.

(4) Shown evidence of a valid teacher's certificate. The only exception to this is that a limited number of persons are accepted without teaching certificates as noted elsewhere.

(5) Taken the Core battery of the National Teacher's Examination or the Graduate Record Examination (GRE) within the past four years, with scores acceptable within state guidelines. Students are required to take this examination before completing the first 12 hours of graduate work.

Transfer Credit

A maximum of nine semester hours from a recognized and accredited graduate school may be transferred toward the M.A. degree in Education. For students working on Fifth-Year Certificate a maximum of 14 semester hours may be transferred. Fifteen semester hours may be transferred toward the Rank I program. Requests for transfer credit must be appropriate to the student's planned program, carry a grade of at least "B", and be approved by the Dean of Graduate Academic Affairs.

No credit is allowed toward the Master's degree for courses taken by correspondence.

Academic Information

Degree and Certification Requirements

The Master of Arts in Education degree program and the non-degree Fifth-Year certification program are designed primarily for in-service teachers in public schools.

Master of Arts in Education Degree

Requirements for the Master's degree include: (1) completion of one of the degree programs described in the **Graduate Programs** section of this catalog; (2) a minimum grade point average of 3.0; (3) satisfactory performance on the Comprehensive Examination; and (4) completion at Union College of at least 21 of the required 30 semester hours. A minimum of 15 semester hours must be earned in courses numbered 500 or higher. For students electing to write a Master's thesis, the six semester hours of credit are included in the elective component (6 hours) of the degree plan.

Fifth-Year Certification

Fifth-Year certification requirements include: (1) completion of a 32-semester hour program of studies; (2) a minimum grade-point average of 2.5; (3) 12 semester hours in professional education courses; (4) 12 semester hours in a field of specialization, and (5) completion at Union College of at least 18 of the required 32 semester hours.

One of the Kentucky Fifth-Year certification programs allows certain Continuing Education Units (CEU) and in-service training to be credited toward a certificate. Students desiring to earn CEU credits at another institution for transfer on a Fifth-Year program at Union College must obtain permission in advance from the Dean of Graduate Academic Affairs.

Planned Program

Planned student programs are required of all graduate students and are to be completed by the student and an advisor or Dean of Graduate Academic Affairs. The written program constitutes an agreement leading to the M.A. degree and/or other certification programs. In order to assure that all academic requirements are met, *the student's program must be finalized before the completion of two graduate courses.* Any subsequent changes in the program must be approved by the Dean of Graduate Academic Affairs.

Maximum Course Loads

The maximum course load for full-time graduate students is fifteen semester hours for a regular semester, six hours per summer term, and three hours for an interim session. Graduate students engaged in full-time employment are restricted to six semester hours for a regular semester and three hours for a summer term. Twelve hours per semester constitutes a full load. Students taking 12 or more hours pay full tuition charges as found on page in this catalog.

Credit may not be earned concurrently at another institution without the permission of the Dean of Graduate Academic Affairs, and then only within the total limits indicated above.

Time Limits

A graduate student is expected to complete requirements for the Master's degree, the Fifth-Year Program, or Rank I no later than five years after beginning course work. An extension of the time limit for an additional three years may be granted for sufficient reason by the Dean of Graduate Academic Affairs and the Graduate Council upon written petition from the student. If the course work is deemed reasonable within the framework of current

knowledge and findings, or if for some physical reason the student has not been able to complete his/her work on schedule, consideration will be given for the extension of time.

The minimum time needed to complete the graduate work is two full semesters or its equivalent in summer sessions and part-time study.

Courses offered by Union College in off-campus locations apply toward the requirements, although some required courses are offered on campus only.

Independent Studies, TV Courses, Workshops

A student may take up to a total of 9 hours in TV courses, workshops, and independent studies at the Master's level, and up to a total of 12 hours on the 60-hour graduate program (M.A. + 30 or Rank I).

While the chief purpose of the independent study is to afford the student an opportunity to obtain credit for study outside the regular course offerings of the graduate program, permission may be granted under special conditions for a student to take a regularly scheduled course as an independent study.

Visiting students and students beginning their graduate studies are not permitted to take a course on an independent study basis.

Credit for independent studies done at other accredited institutions will be accepted provided such credit meets the Union College transfer credit requirements.

A student must have successfully completed nine semester hours of earned graduate credit in order to qualify for independent study.

All proposals for independent study must be approved by the Dean of Graduate Academic Affairs. It is the student's responsibility to work with a professor in planning the course of study and to present the proposal for approval no later than three days after the registration date of the semester during which the work is to be accomplished. Forms for independent study must be obtained from the Office of Graduate Academic Affairs.

Comprehensive Examination

A written comprehensive examination is required of all students who have been admitted to candidacy for the Master of Arts in Education degree and who have completed or are completing 24 credit hours toward the degree. The examination is given in April, July, and December each year. *Students must be admitted to candidacy for the Master's degree before being allowed to take the examination. An application for the examination must be filed in the Graduate Office at least 30 days prior to the scheduled date of the exam.*

A student who fails one of the four parts of the examination and is scheduled to graduate at the end of that term may request an oral examination on that part or may repeat the examination at a later date.

Following are some of the salient aspects of the comprehensive examination:

(1) All examination questions are of the essay type.

(2) The comprehensive examination includes four areas, each representing a one-hour section of the examination: 1) research, 2) professional knowledge, 3) a current topic in education and 4) the student's teaching field.

(3) The research question requires the analysis of a published research report and the interpretation of examples of commonly used statistical procedures.

(4) The professional knowledge portion includes questions representing each of the courses in the professional block of the degree program. Students write on any one of these questions.

(5) The third question requires all students to write on a current topic in education, the topic to be selected by the faculty examination committee. Students are expected to have read widely in current education journals. A list of possible topics is prepared sufficiently in advance of the examination to guide students in their reading.

(6) The fourth question requires the student to write on a topic in his or her teaching field.

Master of Arts Thesis

Students may opt to write a thesis in partial fulfillment of the requirements for the M.A. degree. The thesis is a systematic, written presentation of the results of a study, investigation or research. Thesis credit will fulfill six hours in the elective component of the M.A. program.

The Union College Graduate Council views the Master's Thesis as a completed document that demonstrates a high degree of competence in originality and creativity. Before registering for EDUC 599 (Thesis), the student must complete a total of 15 semester hours of graduate work, including EDUC 500 - Educational Research.

Students choosing the thesis route must have an advisory committee of at least 3 faculty members who regularly teach graduate courses. The chairman shall be from the student's major area of interest. At least one member shall be from the area of education, and at least one member shall be from outside the field of education. The Dean of Graduate Academic Affairs shall serve as ex officio member. The names of the committee/members shall be submitted to the Dean for approval.

The committee, appointed by the Dean of Graduate Academic Affairs, shall review the student's proposal to ensure that the problem to be investigated is a significant one, that a thorough review of the literature has been conducted, and that the student is planning to use proper methodology.

The completed draft of the thesis is to be presented to the chairman of the student's advisory committee at least 30 days before graduation. A final oral examination on the thesis is to be successfully completed 10 days before graduation. Two copies of the completed thesis and an abstract (150-350 words) are to be presented to the Dean one week before graduation.

If the thesis is not completed within two semesters after the student registers for EDUC 599, the candidate must continue to register each semester until the thesis is completed. The student shall pay a continuous registration fee of one credit hour tuition charged each semester until the thesis is completed unless the change is otherwise waived by the thesis committee. Exceptions must be recommended by the thesis committee and approved by the Graduate Council.

Detailed information concerning the thesis may be obtained in the Graduate Office.

Auditing

With the consent of the instructor a person may audit a course, provided he/she meets the graduate admission requirements. An auditor is one who wishes to attend a class regularly, but who does not wish to meet the assignment or evaluation requirements of students enrolled for credit. Courses with limited enrollment, laboratory courses, and seminars are not open to auditors. Audited courses will not appear on the transcript and may not later be applied for credit. A fee of $15 per semester hour is charged.

Seniors as Graduate Students

The option to enroll in graduate courses (400G or 500 level) is open to seniors lacking no more than six credit hours for graduation and satisfying the following conditions:

(1) The student's grade point average must be at least 3.0 on all work attempted.

(2) The approvals of the Dean of Graduate Academic Affairs, the student's advisor and the Registrar must be obtained.

(3) The total of the student's academic load may not exceed twelve credit hours for the semester.

(4) All requirements for the undergraduate degree must be completed during the semester or summer in which the student is allowed to register for part-time graduate work.

Graduate credit will be allowed only for those courses completed beyond the requirements for the undergraduate degree.

In addition to the application for admission to the Graduate Studies Program, the student is required to file a petition form listing the course or courses to be taken to complete the undergraduate degree as well as courses to be taken for graduate credit.

The petition must be approved by both the Dean of Graduate Academic Affairs and the Registrar.

The Grading System and Quality Points

Grades for graduate courses at Union College are defined as follows:

A Excellent. Outstanding achievement. Four quality points per semester.

B Good. Acceptable achievement. Three quality points.

C Fair achievement. Only minimally acceptable. Two quality points.

D Very low performance. One quality point. The records of students receiving such grades are subject to review. The result could be denial of permission to register for further graduate work at Union College.

F Failure. No academic credit and no quality points.

W Withdrawal from a course during the first 12 weeks of the semester. Failure to officially withdraw from a course before the withdrawal deadline indicated in the academic calendar may result in an automatic grade of F.

I Incomplete. Used when attendance requirements have been met but granting a grade has been postponed because, for reasons satisfactory to the instructor, certain course assignments have not been completed. An "I" must be removed before the end of the following regular semester if the student is enrolled for that semester. If the student is not enrolled, the "I" must be removed before the end of the 12-month period following the date the grade was recorded. An "I" that is not removed within the time limit remains on the student's permanent record and cannot be made up.

If a course is repeated at Union College, only the second grade is used in computing the student's grade point average.

Course Numbering System

Courses available to graduate students are offered on three levels, numbered 400, 500, and 600. A limited number o 400-level undergraduate courses are open to graduate students, and are so designated by a "G" in the course number. (Example: EDUC 401G.) A maximum of 15 semester hours may be taken on the M.A. level, 6 semester hours on the Rank I level. Since these courses are available to advanced undergraduate students, care must be exercised to avoid duplication of courses already taken.

Courses on the 500 level are limited to graduate students. Those on the 600 level are intended primarily for Rank I students, although 9 semester hours on this level may be taken by M.A. candidates.

Some course numbers are reserved for specific types of courses, and are not included in **Course Descriptions** section of this catalog.

581, 681	"Special Topics" courses developed on a one-time basis, or a special innovative course.
582, 682	Special workshop.
583, 683	Courses offered through the Kentucky Educational Television Network (KET).
595, 695	Independent study. Courses offered for individual study outside the regular course offerings. Under special conditions a student may be permitted to take a regularly scheduled course as an independent study.

Graduate Programs of Study

Master of Arts in Education
Non-Degree Fifth-Year Program
Rank II Certification

Elementary Teacher 23-25
Kindergarten Teacher 24
Middle School Teacher 26
- English and Communication
- Mathematics
- Science
- Social Studies

Teacher of the Gifted 27
Reading Specialist 27
High School Teacher 28-31
- English 28
- Health 28
- History 29
- Music 29
- Psychology 29
- Science 30
- Social Studies 30
- Sociology 31

Rank I Certification

Elementary Teacher 31-32
Middle School Teacher 31-32
High School Teacher 31-32
Reading Specialist 27, 31
Elementary School Principal 31, 33
Middle School Principal 31, 34
High School Principal 31, 34
Supervisor of Instruction 31, 35
Director of Pupil Personnel 31, 36

Administrative Programs

Elementary School Principal 33
Middle School Principal 34
High School Principal 34
Supervisor of Instruction 35
Director of Pupil Personnel 36

Curricula

The planned Fifth-Year Program required for the renewal of provisional elementary teaching certificates shall be planned as outlined by the Kentucky State Department of Education and shall be accepted as an equivalency for a Rank II classification in Kentucky. Union College has adopted the following three plans whereby students may earn Rank II Classification:

1. Completion of the Master of Arts in Education degree (non-thesis) — 30 semester hours.
2. Completion of the Master of Arts in Education degree (thesis) — plus 24 semester hours.
3. Completion of the Fifth-Year non-degree program — 32 semester hours.

Elementary Education Curriculum

NOTE: The program below has been submitted to the Kentucky State Department of Education pending approval of the Kentucky State Board of Education. Students should consult the Graduate Office for guidance in taking required courses.

Early Elementary Education Curriculum, K-4

(M.A., Standard Certificate, Rank II)

1. PROFESSIONAL EDUCATION COMPONENT ..... 12 Semester hours

EDUC 500	Methods of Educ. Research
EDUC 520	Techniques and Materials for Classroom Reading
	OR
EDUC 530	Diagnostic and Remedial Procedures in Reading
Choose one:	
EDUC 502	Curriculum Design
	OR
EDUC 501	History and Philosophy of Education
	OR
EDUC 603	Elementary Curriculum
Choose one:	
PSYH 600	Advanced Human Development
PSYH 565	Psychology of Exceptional Children

2. SPECIALIZATION COMPONENT ..... 12 Semester hours

ECON 601	Economics for Teachers
ECON 605	Consumer Economic Issues for Teachers
ENGL 402G	Modern Grammar
ENGL 419G	Composition for Teachers
ENVS 469G	The Appalachian Environment
ENVS 550	Environmental Education Strategies
GNSC 401G	Science: Concepts, Processes, Inquiry
GNSC 525	Science for the Elementary Grades
GNSC 551	Topics in Physical Science
HLTH 451G	School and Community Health
HLTH 582	Safety Education
HLTH 475G	Special Topics in History
HIST 521	History and Culture of Appalachia
MATH 531	Topics of Modern Math for Elementary Teachers
MATH 532	Modern Math Laboratory
PSYH 470G	Theories of Learning
PSYH 565	Psychology of Exceptional Children
SOCI 421G	Rural and Urban Society
SOCI 511	Educational Sociology

Courses chosen above must be from four (4) separate fields.

3. ELECTIVE COMPONENT* ..... 6 Semester hours

Students electing to continue their education in administration may use these electives to begin an administration program or strengthen their backgrounds in behavioral science.

EDUC 441G	Teaching Social Studies
EDUC 468G	Educational Media
EDUC 511	Tests and Measurements
EDUC 603	Elementary School Curriculum
EDAD 630	School Law

*Thesis — EDUC 599 (6 hours) may be written in lieu of taking 6 hours of course work. For further information the student should contact the graduate office.

Early Elementary Education Curriculum, (K-4)
(Fifth-Year Certificate, Rank II, Non-Degree)

1. PROFESSIONAL EDUCATION ..... 12 Semester hours

Must include:

EDUC 500	Methods of Research
EDUC 520	Techniques and Materials for Classroom Reading Instruction
EDUC 530	Diagnostic and Remedial Procedures in Reading

Choose one:

EDUC 502	Curriculum Design
	OR
EDUC 501	History and Philosophy of Education
	OR
EDUC 603	Elementary School Curriculum

Choose one:

PSYH 600	Advance Human Development
	OR
PSYH 565	Psychology of Exception Children

2. SPECIALIZATION COMPONENT ..... 12 Semester hours

Must be selected from those courses listed under the Specialization Component in the Master (K-4) program. Course selection may be made upon needs and current teaching assignment. Selection may include courses numbered 581, 681, (special topics) and/or 582, 682 (special workshops), however courses must be approved by advisor and Dean of Graduate Studies. Six hours must be graduate level.

3. ELECTIVES ..... 9 Semester hours

May be chosen from the area of specialization or other graduate courses — Education or Non-Education, depending upon interests and needs of student. However, selection must be made in sequence with previous preparation. Courses numbered 583, 683 (Kentucky Educational TV Network) may be included.

Kindergarten Teacher Preparation

NOTE: The Kindergarten block below is under study by State officials at the time of this printing and students need to consult the graduate office for the most recent development.

An endorsement for teaching kindergarten shall be issued to applicant who holds a valid certificate for classroom teaching at the elementary level (1-8) and who has completed the program below for the kindergarten endorsement.

EDUC 440G	Introduction to Early Childhood Education	3 hrs.
EDUC 542	Fundamentals to Kindergarten Education	3 hrs.
EDUC 545	Practicum in Kindergarten Education	6 hrs.

A portion of the kindergarten program may be included in the program leading to the standard elementary certificate.

The kindergarten program is offered in the summer in even numbered years.

Early Elementary Endorsement Program (K-4)

The program of preparation for the endorsement for teaching at the K-4 level of certificate valid for classroom teaching in the **Middle** grades **or** at the **High School** level. (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education.)

A number of the required courses listed below are of graduate level and may be applied toward the M.A. degree in Education or Rank I Certificate. Complete information is available in the Graduate Office.

1. PROFESSIONAL PREPARATION:

Education 351 - Human Growth and Development ..... 3 hrs.
OR
Psychology 600 - Advanced Human Development ..... 3 hrs.

Education 361 - Reading in the Primary Grades ..... 3 hrs.
OR
Education 520 - Techniques and Materials for Classroom Reading Instruction. ..... 3 hrs.

*Education 341 - Methods of Teaching Mathematics in Elementary School ..... 3 hrs.
OR
*Math 532 - Modern Math Laboratory ..... 3 hrs.

*General Science 401G - Science: Concepts, Processes, and Inquiry ..... 3 hrs.
OR
*GNSC 525 - Science for the Elementary Grades ..... 3 hrs.

*Education 441G - Methods of Teaching Social Studies ..... 3 hrs.

*Education 433 - Supervised Student Teaching in the Elementary Grades ..... 3-6 hrs.
(K, 1, or 2 level)
OR
Education 635 - Laboratory Experiences ..... 3 hrs.
(K-4)

(Students must have completed at least one year of full-time teaching.)

*Course work will contain experience with the use of computers and classroom experiences (K-4).

2. RELATED STUDIES:

Art 271 - Elementary School Art ..... 3 hrs.
Music 373 - Elementary School Music ..... 3 hrs.
Physical Education 261 - Physical Education in the Elementary School ..... 3 hrs.
Health 451G - School and Community Health ..... 3 hrs.
Health Elective (graduate or undergraduate) ..... 3 hrs.

Candidates without a major, minor, or area of concentration in mathematics must complete one of the following:

Math 203, 204 ..... 6 hrs.
OR
Math 531 - Topics in Modern Math for Elementary Teachers ..... 3 hrs.

English 355 - Children's and Adolescent Literature ..... 3 hrs.

Middle Grade Endorsement Program (5-8)
(Applicants who hold Elementary Certificate)

The program of preparation for the endorsement for classroom teaching in the middle grades of a certificate valid for classroom teaching in the **Elementary** grades. (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education.)

Graduate level courses listed below may be applied toward the M.A. Degree in Education or Rank I Certificate.

Requirements:

1. The applicant must hold **24 hours** in one of the following fields:
   English and Communications
   Mathematics
   Science
   Social Studies

Complete information is available in both the Registrar's and Graduate Office as to specific courses needed in the above fields.

2. Education 601 - Advanced Study of the Middle Grade Child ..... 3 hrs.
   OR
   Education 352 - Human Growth and Development in the Middle Grades ..... 3 hrs.
3. Education 370 - The Middle School Curriculum ..... 3 hrs.
   OR
   Education 583 - The Middle School (KET course) ..... 3 hrs.

Middle Grade Endorsement Program (5-8)
(Applicants who hold Secondary Certification)

The program of preparation for the endorsement for classroom teaching in the middle grades of a certificate valid for classroom teaching at the **high school** level. (The endorsement plan is based upon the Union College undergraduate program approved by the Kentucky State Board of Education.)

Graduate level courses listed below may be applied toward the M.A. Degree in Education or Rank I Certificate.

Requirements:

1. The applicant must hold **24 hours** in one of the following fields:
   English and Communications
   Mathematics
   Science
   Social Studies

   Complete information is available in both the Registrar's and the Graduate Office as to specific courses needed in the above fields.

2. Education 520 - Techniques and Materials for
   Classroom Reading Instruction ..... 3 hrs.
   OR
   Education 620 - Teaching Reading in the Content Field ..... 3 hrs.
3. Education 601 - Advanced Study of the Middle Grade Child ..... 3 hrs.
   OR
   Education 352 - Human Growth and Development in the Middle Grades ..... 3 hrs.
4. Education 370 - The Middle School Curriculum ..... 3 hrs.
   OR
   Education 583 - The Middle School (KET Course) ..... 3 hrs.

Standard Middle School Certification

Students who hold an undergraduate degree in middle school certification may earn the standard certificate for the same at the Master's Level. Consult the Graduate Office for further information.

Gifted Education Teacher Preparation

An endorsement as teacher for gifted education shall be issued to an applicant who holds a valid certificate for classroom teaching at the elementary school level, the middle grade level, or the high school level, who has completed at least (3) years of successful teaching experience; and who has completed the program listed below for the gifted endorsement. The endorsement shall be valid for the same grade levels as the base certificate.

EDUC 550	Foundations of Gifted Education	3 hrs.
EDUC 551	Curriculum Development for Gifted Children	3 hrs.
EDUC 552	Instructional Strategies and Materials	3 hrs.
EDUC 553	Practicum for Gifted Education	3 hrs.

A portion of the program may be included in the graduate program leading to a standard certificate at the elementary or secondary level. For details the applicant should consult the Graduate Office. The gifted education program is offered on demand.

Reading Specialist Preparation

Requirements for the endorsement for reading specialist shall consist of the M.A. degree in Education plus completion of three years of successful classroom teaching, and shall be valid for the teaching level specified on the teaching certificate used as a base for the endorsement.

Elementary Reading Specialist Program

(M.A. in Education, Standard Elementary, Rank II, Reading Specialist Endorsement)

1. **PROFESSIONAL EDUCATION** ..... 9 Semester hours
   Must include:
   EDUC 500, EDUC 530
   One course to be selected from:
   EDUC 501, 502
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   Must include:
   ENGL 421G or 401G
   PSYH 525, 565
   One course to be selected from:
   PSYH 470G, 600, 650
3. **RELATED FIELD** ..... 9 Semester hours
   Must include:
   EDUC 532, 535
   Elective:
   EDUC 603 or one course from component I, II

Secondary Reading Specialist Program

Part of the secondary reading specialist program may be earned at the M.A. degree level but the applicant must fulfill requirements as set forth in this catalog for the standard secondary certificate.

The following graduate courses must be taken in addition to the requirements for the standard secondary certificate:

EDUC 530	Diagnostic and Remedial Procedures in Reading	3 hrs
EDUC 532	Techniques and Materials for Remedial Reading	3 hrs
EDUC 535	Practicum in Teaching Reading with Clinic	3 hrs
EDUC 604	Secondary School Curriculum	3 hrs
PSYH 525	Psychology of Reading	3 hrs
ENGL 421G or 401G		3 hrs

The reading specialist program is offered in the summer in odd-numbered years.

Beginning with the 1987-88 school year and thereafter, an endorsement for serving a reading specialist in grades seven (7) through twelve (12) may be extended to grades five (5) through twelve (12) upon completion of the following course work at the graduate level:

(1) Three (3) semester hours of study related to human growth and development with emphasis on pupils in the age range encompassed by the middle grades, five (5) through eight (8); and

(2) Three (3) semester hours of credit in the middle grade school curriculum.

High School Curriculum

Persons holding the provisional certificate for teaching in high school (9-12), may choose one of the following three options to earn Rank II certification:

1. Completion of the Master of Arts in Education degree (non-thesis) — 30 semester hours
2. Completion of the Master of Arts in Education degree (thesis) — 24 semester hours
3. Completion of the Fifth-Year Non-degree program — 32 semester hours

English Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. PROFESSIONAL EDUCATION ..... 12 Semester hours
Must include:
EDUC 500, 501, 502, or 600
Choose one course from:
PSYH 600, 650

2. SPECIALIZATION COMPONENT ..... 15 Semester hours
Select EDUC 520, 620, or 530 and four courses from:
ENGL 401G, 402G, 419G, 421G, 451G, 521, 522, 541, 542, 572, or 595

3. ELECTIVES ..... 3 Semester hours
Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
EDUC 604 or EDAD 630 suggested

Health Curriculum

(M.A. in Education, Standard Secondary Certificate, Rank II)

1. PROFESSIONAL EDUCATION ..... 12 Semester hours
Must include:
EDUC 500, 501, 502, or 600
Choose one course from:
PSYH 600, 650

2 SPECIALIZATION COMPONENT ..... 12 Semester hours
Select from HLTH 451G, 475G, 551, 582, 595

3. **ELECTIVES** ..... 6 Semester hours
Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
EDUC 604 and EDAD 630 suggested

History Curriculum
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
Must include:
EDUC 500, 501, 502 or 600
One course to be chosen from:
PSYH 600, 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
Must include: HIST 541
Select from: HIST 421G, 446F, 470G, 475G, 521, 531, 551, 595
3. **ELECTIVES** ..... 6 Semester hours
Elect from area (1) or (2) or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
EDUC 604 and EDAD 630 suggested

Music Curriculum
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
Must include:
EDUC 500, 501, 502 or 600
PSYH 600 or 650
2. **MUSIC COMPONENT** ..... 12 Semester hours
Choose four courses from the following:
Music 520, 570, 572, 573, 574, 575
3. **ELECTIVES** ..... 6 Semester hours
Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
EDUC 604 and EDAD 630 suggested

Psychology Curriculum
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
Must include:
EDUC 500, 501, 502 or 600
One course to be chosen from:
PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
Select from:
Psychology 402G, 460G, 461G, 470G, 565, 595, 640
3. **ELECTIVES** ..... 6 Semester hours
Select from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
EDUC 604 and EDAD 630 suggested

Science Curriculum - Biological Science
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
   Must include:
   EDUC 500, 501, 502 or 600
   One course to be selected from:
   PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   A minimum of 6 hours in Biology. Must include BIOL 595 unless thesis option is chosen below. An additional six hours should be chosen from courses in the major or minor teaching field. ENVS 550 or GNSC 584 may be included.
3. **ELECTIVES** ..... 6 Semester hours
   M.A. thesis (6 hours) is recommended. Suggested alternative is EDUC 604 and EDAD 630 or one course from area 1 above.

Science Curriculum - Chemistry and/or Physical Science
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
   Must include:
   EDUC 500, 501, 502 or 600
   One course to be selected from:
   PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   A minimum of 6 hours in Chemistry or Physics. Must include CHEM or PHYS 600 unless thesis option is chosen below. An additional six hours should be chosen from courses in the major or minor teaching fields. ENVS 550 or GNSC 584 may be included.
3. **ELECTIVES** ..... 6 Semester hours
   M.A. thesis (6 hours) is recommended. Suggested alternative is EDUC 604 and EDAD 630 or one course from area 1 above.

Social Science Curriculum*
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
   Must include:
   EDUC 500, 501, 502 or 600
   One course to be chosen from:
   PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   Must include:
   HIST 541
   Select from:
   SOCI 421G, 433G, 460G, 464G, 511, 595
   HIST 421G, 446G, 470G, 475G, 521, 531, 551, 595
3. **ELECTIVES** ..... 6 Semester hours
   Elect from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

*Open to those holding certification in a social studies concentration or having a history major or minor.

Sociology Curriculum
(M.A. in Education, Standard Secondary Certificate, Rank II)

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
   Must include:
   EDUC 500, 501, 502 or 600
   One course to be chosen from:
   PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   Select from:
   SOCI 421G, 433G, 460G, 464G, 511, 595
3. **ELECTIVES** ..... 6 Semester hours
   Select from area (1) or (2) above or from other graduate disciplines with approval of the Dean of Graduate Academic Affairs.
   EDUC 604 and EDAD 630 suggested

High School Fifth-Year Non-Degree Curriculum*
(Standard Certificate, Rank II)

Requirements for students holding provisional secondary teaching certification and desiring to earn a fifth-year non-degree program are listed on page 18.

1. **PROFESSIONAL EDUCATION** ..... 12 Semester hours
   Must include:
   EDUC 500, 501
   Choose one:
   EDUC 502, 600, 604
   Choose one:
   PSYH 600 or 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hours
   Must be selected from teaching major or minor or closely-related field. Course selection may include courses numbered 581, 681 (special topics) and/or 582, 682 (special workshops), however courses must be approved by advisor and Dean of Graduate Studies. See current catalog. Six hours must be graduate level.
3. **ELECTIVE COMPONENT** ..... 8 Semester hours
   May be chosen from the area of specialization or other graduate courses — Education or non-Education, depending upon interests and needs of student. However, selection must be made in sequence with previous preparation. Courses numbered 583, 683 (Kentucky Educational TV Network) may be included.

*Comprehensive exams are not required for the Fifth-Year Certificate.

Rank I Classification

The preparation program for Kentucky's Rank I classification under the Foundation Law shall be planned in advance by the candidate and the graduate advisor in terms of one (1) or more of the following purposes:

(a) To improve the professional competency for the position covered by the initial teaching certificate;

(b) To extend the scope of professional competency to some certification area not covered by the initial certificate;

(c) To obtain preparation-certification required for professional advancement to a higher position.

Rank I classification requires the completion of a planned program of 30 semester hou beyond the Master's level. The program for the Rank I must include a minimum of 12 hou of 600 level courses and may include a maximum of 6 hours of 400G level courses. Educatio 670 - Directed Field Project is required of all students.

Each program is especially planned for the student and requires a conference with th Dean of Graduate Academic Affairs or an Adviser prior to enrollment. Up to 15 hours cred may be transferred from other graduate institutions if appropriate to the student's planne program and if the final grade achieved is at least a "B".

A grade point of at least 3.0 is required for certification and no comprehensiv examination is required. Correspondence courses may not be transferred into the progran

Although each program is individualized, the guidelines below will prevail in th planning of the program. Some courses may have been taken at the Master's level, an appropriate courses may be substituted with the permission of the Dean of Graduate Affair

Students who are admitted to Rank I program must:

1. Make application and have two different transcripts sent to the Graduate Offic Union College. (There is no application fee for students who receive the M.A. or 5th year certificate at Union College.)
2. Submit latest certificate earned to Graduate Office.

Students who complete requirements for Rank I must file a request in the Registrar' Office for transcripts to be sent to appropriate officials. This applies to all students who ar completing Rank I for certification or a change in rank or both. Proper Certification forms ar available in the Registrar's Office and should be secured before the end of the term in whic the student is completing his/her work.

Elementary, Middle, or High School Teacher (Rank I)*

1. **PROFESSIONAL EDUCATION** ..... 9 Semester hour
   Must include EDUC 500, 501, 670
   Suggested courses EDUC 511, PSYH 470G, 650
2. **SPECIALIZATION COMPONENT** ..... 12 Semester hour
   Include only non-education courses
   Suggested courses: PSYH 565 and 600
3. **RELATED FIELDS** ..... 9 Semester hour
   Must include EDUC 603 or 604, EDAD 630
   Remaining courses should be selected from: EDUC 468G, 502, 600, 620

*Some courses listed as required may have been taken at the M.A. or Fifth-year leve Appropriate courses may be substituted by consulting with adviser or Dean of Graduat Academic Affairs.

Administrative Certification Curricula

(M.A. plus 18 Semester hours)

Students pursuing the principalship or supervision program since the fall of 1988 mus follow the new curricular requirements for the professional certificate for instructiona leadership. Students who are under the former programs (prior to 1988) must meet al Certification requirements by September 1, 1992. Students enrolled in the principalshi program must take the following tests with satisfactory scores plus an internship program

1. NTE - Speciality Area Test of Educational Administration and supervision.
2. NTE - Core Battery components of communication skills and general knowledge.
3. The Kentucky Specialty Test of Instructional and Administrative Practice.

Students outside Kentucky desiring Administrative Certification in their respective stat should consult appropriate officials in that state for certification requirements.

Principalship Certification Programs

Students may earn certification for the principalship program with 18 graduate hours bove the M.A. degree of required courses. This certifies the student for Level I after ompletion of the Internship Program which is valid for 5 years. For continued certification ne student must earn 12 additional required graduate earning Level II Certification and Rank

The students must fulfill the following requirements to be admitted to any level of rincipalship Certification:

A. Submit transcript indicating completion of M.A. degree.
B. Submit copy of Standard Teaching Certificate valid for regular classroom teaching for the grade levels for which he/she plan to be an administrative leader.
C. Present evidence of 3 years of full-time teaching.
D. Submit 2 formal recommendation (forms in graduate office).
E. Have a G.P.A. of 3.00 on graduate work earned.
F. Meet required current cut-off point of the N.T.E.

Professional Certificate for Instructional Leadership Elementary School Principalship, K-4

Prerequisite Courses

EDUC 500	Methods of Educational Research
EDUC 520	Techniques & Materials for Classroom Reading Instruction
	OR
EDUC 530	Diagnostic and Remedial Procedures in Reading
EDUC 501	History and Philosophy of Education
EDUC 502	Curriculum Design
	OR
EDUC 600	Advanced Curriculum
PSYH 565	Psychology of Exceptional Children
EDUC 603	Elementary School Curriculum
PSYH 600	Advanced Human Development
	OR
PSYH 650	Advanced Educational Psychology

Level I Certification Requirements

EDUC 511	Tests and Measurements
EDUC 573	Computers in Education
EDUC 676	Research and Seminar in Elementary Education
EDAD 645	School Organization & Administration
EDAD 654	Improvement of Instruction Through Supervision
EDAD 655	The Elementary School Principal

Level II Certification and Rank I Requirements

EDAD 630	School Law
EDAD 640	School Finance and Business Management
EDAD 669	School and Community Relations
EDAD 670	Directed Field Project - Personnel Administration

In addition to receiving Principalship Certification, the student will receive certification s Supervisor of Instruction, K-4.

A certificate based upon Level II preparation as a middle grade principal may be xtended to early elementary school principal, grades K-4, upon completion of nine (9) emester hours of graduate credit which shall include, but not be limited to:

(1) Elementary school curriculum;
(2) Teaching reading at the elementary school level;
(3) Organization and administration of the elementary school; and
(4) Field experience in an elementary school.

For further details the student should contact the Graduate Office.

Professional Certificate for Instructional Leadership Middle School Principal, 5-8

Prerequisite Courses

EDUC 500	Methods of Educational Research
EDUC 502	Curriculum Design
	OR
EDUC 600	Advanced Curriculum
EDUC 520	Techniques & Materials for Classroom Reading Instruction
	OR
EDUC 530	Diagnostic and Remedial Procedures in Reading
EDUC 583	The Middle School Curriculum
EDUC 601	Advance Study of the Middle Grade Child
PSYH 565	Psychology of Exceptional Children

Level I Certification Requirements

EDUC 511	Tests and Measurements
EDUC 573	Computers in Education
EDUC 677	Research & Seminar on the Middle School
EDAD 645	School Organization & Administration
EDAD 654	Improvement of Instruction Through Supervision
EDAD 657	The Middle School Principal

Level II Certification and Rank I Requirements

EDAD 630	School Law
EDAD 640	School Finance and Business Management
EDAD 660	School & Community Relations
EDAD 670	Directed Field Project in Personnel Administration

In addition to receiving Principalship Certification, the student will receive Certification as Supervisor of Instruction, 5-8.

A certificate based upon Level II preparation as an early elementary school principal or as a secondary school principal may be extended to middle grade principal 5-8 upon completion of six (6) semester hours of graduate credit which shall include, but not be limited to:

(1) Organization and administration of middle grade schools;
(2) Philosophy and curriculum of middle grade schools; and
(3) Nature and needs of middle grade school students.

The validity of the extend certificates shall be limited to the respective grade levels, either K-8 or 5-12.

For further details the student should contact the Graduate Office.

Professional Certificate for Instructional Leadership Secondary School Principal, 9-12

Prerequisite Courses

EDUC 500	Methods of Educational Research

EDUC 501	History and Philosophy of Education
EDUC 502	Curriculum Design
	OR
EDUC 600	Advanced Curriculum
EDUC 604	Secondary School Curriculum
PSYH 600	Advanced Human Development
	OR
PSYH 650	Advance Educational Psychology
PSYH 565	Psychology of Exceptional Children

Level I Certification Requirements

EDUC 511	Tests and Measurements
EDUC 573	Computers in Education
EDUC 678	Research & Seminar in Secondary Education
EDAD 645	School Organization & Administration
EDAD 654	Improvement of Instruction Through Supervision
EDAD 656	The Secondary School Principal

Level II Certification and Rank I Requirements

EDAD 630	School Law
EDAD 640	School Finance & Business Management
EDAD 660	School & Community
EDAD 670	Directed Field Project in Personnel Administration

In addition to receiving Principalship Certification, the student will receive Certification as Supervisor of Instruction, 9-12.

A certificate based upon Level II preparation as a middle grade principal may be extended to secondary school principal, grades 9-12, upon completion of six (6) semester hours of graduate credit which shall include, but not be limited to:

(1) Secondary school curriculum;
(2) Organization and administration of the secondary school; and
(3) Field experience in a secondary school.

For further details the student should contact the Graduate Office.

Supervisor of Instruction Certification Program

Requirements

The student must:

A. Submit transcript indicating completion of M.A. degree.
B. Submit copy of Standard Teaching Certificate of one of the following types certificates held:
Standard elementary 1-8, Standard elementary K-4, Standard middle grades 5-8, Standard high school 7-12, Standard high school 9-12, Standard - exceptional children (except speech and communication disorders).
C. Submit evidence of 3 years of full-time teaching.
D. Submit 2 formal recommendations (forms in Graduate Office).
E. Show evidence of G.P.A. of 3.00 on graduate work earned.
F. Meet required cut-off point of the N.T.E.

Prerequisite Courses

EDUC 500	Methods of Educational Research
EDUC 501	History & Philosophy of Education
EDUC 511	Tests & Measurements
EDUC 502	Curriculum Design
	OR
EDUC 600	Advanced Curriculum
EDUC 520	Techniques & Materials for Classroom Reading Instruction
PSYH 600	Advanced Human Development
	OR
PSYH 650	Advanced Educational Psychology

Level I Certification Requirements

EDAD 645	School Organization and Administration
EDAD 654	Improvement of Instruction Through Supervision
EDUC 603	Elementary School Curriculum
	OR
EDUC 583	The Middle School Curriculum
EDUC 604	Secondary School Curriculum
EDUC 680	Research & Seminar in Supervision
PSYH 565	Psychology of Exceptional Children

Level II Certification and Rank I Requirements

EDAD 630	School Law
EDAD 660	School and Community Relations
PSYH 640	Group Processes
EDUC 670	Directed Field Project (guided tudy and/or research in Supervision)

Director of Pupil Personnel

The program of preparation for the Professional Certification for School Administration and Supervision, endorsed for the position of Director of Pupil Personnel, shall consist of a minimum of 45 semester hours' graduate credit, including the Master in Education degree, and three years successful teaching experience, shall include the courses marked with an asterisk below.

One must hold either the Standard Elementary Certificate or the Standard Secondary Certificate, and must have 9 hours from the courses listed below including EDUC 500 and PSYH 600 unless taken at the M.A. level.

EDUC 502	Curriculum Design
EDUC 500	Methods of Educational Research (required)
*PSYH 600	Advanced Human Development (required)
PSYH 470G	Theories of Learning
EDUC 501	History and Philosophy of Education
EDUC 511	Tests and Measurements

1. **PROFESSIONAL EDUCATION** ..... 9-12 Semester hours
   (9 hours selected from above)
   If all courses have been completed, appropriate selections may be made from Components 2 and 3 below.
   **EDUC 670 Directed Field Project ..... 3 Semester hours

2. **SPECIALIZATION COMPONENT** ..... 15-18 Semester hours
   *EDAD 642 Administration of Pupil Personnel Services ..... 3 Semester hours
   *EDAD 643 Pupil Personnel Accounting and Record Management . 3 Semester hours

*EDUC 401G	Introduction to Guidance and Counseling	3 Semester hours
*PSYH 565	Psychology of Exceptional Children	3 Semester hours
*EDUC 573	Computers in Education	3 Semester hours
	(An undergraduate basic computer course may suffice for certification.)	
EDAD 600	School and Community Relations	3 Semester hours
EDAD 630	School Law	3 Semester hours
EDAD 645	School Organization and Administration	3 Semester hours

3. RELATED FIELDS ..... 6-9 Semester hours

EDAD 640	School Finance & Business Management	3 Semester hours
SOCI 511	Educational Sociology	3 Semester hours
EDUC 603	Elementary School Curriculum	3 Semester hours
EDUC 604	Secondary School Curriculum	3 Semester hours

*Required for certification for Director of Pupil Personnel
**Required for Rank I

When the courses marked with one asterisk above have been completed, the student is eligible for the certification - Director of Pupil Personnel, but in order to obtain Rank I the student must complete additional courses totaling 30 hours above the Master's, including 12 hours of 600 level courses.

A foreign student meets with her Thesis Committee.

Course Descriptions

Each course is offered for three semester hours of credit unless otherwise noted.

BIOLOGY

BIOL 561. Topics in Biological Science (3)

A lecture and discussion approach to topics and issues of contemporary importance and interest in the biological sciences. One topic will be extensively explored each term or semester that the course is offered. The course may be repeated when an alternate topic is emphasized. Possible topics include: Cancer, Immunobiology, Human Evolution, Human Reproduction and Development, Human Genetics, Plants and People, etc.

BIOL 600. Research Investigations (3)

An independent research problem in which the student must demonstrate his ability to employ the scientific method in carrying out an original scientific investigation. A typewritten and bound manuscript will be required. An examination may or may not be given, depending on the nature of the problem selected. Prerequisite: Permission of the instructor and approval of the head of the department.

CHEMISTRY

CHEM 421G. Biochemistry (3)

Study of the chemistry, energetics, and metabolism of biomolecules, such as carbohydrates, proteins, lipids, nucleic acids, enzymes and vitamins with reference to living systems. Prerequisite: CHEM 312 Organic Chemistry or its equivalent.

CHEM 561. Selected Topics in Chemistry (3)

Topics to be chosen from current and/or specialized areas of chemistry such as industrial or environmental chemistry and will vary according to students need. May be repeated for a maximum of 6 credit hours if topics differ. For secondary teachers of chemistry, physics and biology.

CHEM 600. Research Investigations (3)

An introduction to research in which the student must demonstrate an ability to use the scientific method by conducting an original scientific investigation. A typewritten report will be required. An examination may or may not be given, depending on the nature of the problem selected. Prerequisite: Permission of instructor and approval of the Division Chair and Dean of Graduate Academic Affairs.

ECONOMICS

ECON 601. Economics for Teachers (3)

This course is designed for teachers in any subject area, at any grade level, and assumes no background in economics. Its purpose is to share with teachers the variety and scope of opportunities to include economic education in whatever they teach. Teachers in this course discover that they already know and teach economics without realizing it, and learn of ways to expand this instruction, or to develop their own plans for teaching economics to their students. Teachers pursuing any advanced degree qualify for the course.

ECON 605. Consumer Economics for Teachers (3)

The principal objective of this course is to help teachers learn areas of consumer economics they can teach to their students. These topics may be applied at any level, K-12. The course will also provide education in consumer economics issues which will be of personal interest and use to teachers as consumers.

EDUCATION

EDUC 401G. Introduction to Counseling and Guidance (3)

Educational, sociological, and psychological foundations of counseling and guidance in schools, colleges and related service oriented agencies. Includes essential counseling and guidance services, policies, practice and procedures.

EDUC 440G. Introduction to Early Childhood Education (3)

Survey of the physical, emotional, mental, and psychological development of the child under ten, and the role of the early elementary teacher in working with such a child.

EDUC 441G. Teaching Social Studies (3)

Methods and materials for the teaching of elementary school social studies including kindergarten through eight curricula. The philosophies, terminology, and evaluation methods and materials will be included.

EDUC 468G. Educational Media (3)

A study of the multi-media approach in classroom instruction, with guidelines for the selection, production, evaluation, and use of audio-visual materials and equipment.

EDUC 500. Methods of Educational Research (3)

Types of research, selection of problems, collection and classification of data; organization, presentation, and interpretation of materials. Includes unit on computer use and practice.

EDUC 501. History and Philosophy of Education (3)

The historical antecedents of American education and the influence of various educational philosophies are explored. Particular attention is given to the main philosophical approaches to teaching, with emphasis on students developing a rationale and strategy for incorporating these ideas in the classroom setting.

EDUC 502. Curriculum Design (3)

Curricula organization, materials, and methods. Techniques for evaluating and constructing curricula. A unit addressing pupil needs resulting from exceptionality and multicultural differences is included.

EDUC 510. Statistics I (3)

Designed to aid teachers and administrators in their understanding and use of elementary statistical terminology and procedures. Statistical concepts useful in analyzing and interpreting data from published research are emphasized.

EDUC 511. Tests and Measurements (3)

Instruments and techniques for evaluating abilities, aptitudes, personality traits, and interests examined, and teacher-made evaluative instruments given special emphasis. Application of test results to vocational and educational guidance stressed. Special attention to the exceptional child in the evaluative process.

EDUC 520. Techniques and Materials for Classroom Reading Instruction (3)

A foundation course which includes a general review of the following reading skills: Word recognition, comprehension, and fluency. An in-depth study of the various approaches to teaching reading will be included. Students will become familiar with various techniques of instruction, the organization of the reading program, and a variety of reading materials. Simple methods of diagnosis are discussed.

EDUC 530. Diagnostic and Remedial Procedures in Reading (3)

Current research findings in diagnostic and remedial procedures in reading. Techniques for applying diagnostic instruments for locating causes of serious reading deficiencies are developed, along with suggested remedial procedures.

EDUC 532. Techniques and Materials for Remedial Reading (3)

Techniques and materials appropriate to the diagnosis and correction of reading difficulties. Course requirements include auditory and visual screening, diagnostic testing, and conduction of a clinical case study. Prerequisite: EDUC 530. Offered in odd numbered years only.

EDUC 535. Practicum in Teaching Reading with Clinic (3)

Practice involving traditional and behavioral science methodologies for remediation of reading disabilities. Extensive experience using group methodology that employs operant conditioning, respondent, and perceptual learning paradigms. Normally taken concurrently with PSYH 525 - Psychology of Reading. Offered in odd numbered years only.

EDUC 540. Laboratory Experiences in Elementary Education (1-8) (3)

A substitute for student teaching for elementary majors. Considers current problems and trends i teaching with laboratory periods for construction of classroom materials. Classroom teaching exper ences with elementary children are included. Prerequisite: One year of successful classroom teachin experience. Summer only.

EDUC 542. Fundamentals of Kindergarten Education (3)

This course focuses on kindergarten curriculum, materials, organization of the kindergarten program creative experiences for the pre-school child, parent education and home visitation, understanding c families, community resources, planning learning experiences, and evaluation of pupil programs an progress. Direct observation and participation in the kindergarten setting.

EDUC 545. Practicum in Kindergarten Education (6)

This course offers direct, guided, supervised experience with kindergarten children under the supervi sion of a qualified kindergarten teacher. Offered in even numbered years only.

EDUC 550. Foundations of Gifted Education (3)

A study on gifted education that will enable teachers to identify and work with the gifted student Includes discussion of the various categories of giftedness other than I.Q. The course will also include screening and evaluating, needs assessment, and counseling techniques.

EDUC 551. Curriculum Development for Gifted Education (3)

This course involves designing curriculum models and curriculum guides, and developing scope an sequence charts for gifted education. The course offers exploration into the different types of program and how these programs will be implemented. (It will make an attempt to fit the program to th giftedness of individual students.)

EDUC 552. Instructional Strategies and Materials for Releasing Creativity in Gifted Education (3)

The course focuses on instructional strategies and materials needed for releasing creativity for the gifte student. It will have a relaxed atmosphere conducive to drawing forth creative and inductive thinkin on the part of the student. A variety of sources of materials will be used.

EDUC 553. Practicum for Gifted Education (3)

A supervised practicum course in gifted education for teachers who have successfully completed at leas three years of teaching experience. The course emphasizes working directly with gifted students writing units and lesson plans, developing learning centers, and doing demonstration teaching in th classroom with gifted students from the community.

EDUC 560. Supervision of Student Teaching (3)

Designed for classroom teachers who assume the responsibility of supervising student teachers Experiences deemed necessary for developing students into effective teachers are considered. Prerequi site: One year of teaching experience or consent of the instructor.

EDUC 573. Computers in Education (3)

Designed for teachers, supervisors and administrators. A hands-on experience with microcompute operation, introduction to BASIC, use of of software, and information about instructional and manage ment uses in schools. No previous experience with microcomputers required.

EDUC 583. The Middle School (KET) (3)

Designed to aid educators in becoming more effective in meeting the needs of middle school students The course emphasizes the unique intellectual, socioemotional, and physical characteristics of ten- t fourteen-year-old students. The course includes 15 half-hour programs telecast by Kentucky Educa tional Television and 6 seminar sessions on campus.

EDUC 595. Graduate Independent Study (1-3 hours)

Guided study and research toward the solution of specific educational problems encountered b students. Open to students at 5th year level.

EDUC 599. Master's Thesis (6)

EDUC 600. Advanced Curriculum. (3)
Study of theory, principles, practices, procedures in current curriculum development and reorganization. Prerequisites: EDUC 502, 603, or 604 or by permission of professor.

EDUC 601. Advanced Study of the Middle Grade Child (3)
Focuses on the physical, intellectual, personal, social and moral development of children in fifth through the eighth grades, ages 10-13. Socializing influences such as families, peers, school and mass media are included. The relationship of the transescent child to other age groups is considered.

EDUC 603. Elementary School Curriculum (3)
Curricular organization, materials, and methods currently used in elementary schools. Techniques for evaluating and constructing curricula.

EDUC 604. Secondary School Curriculum (3)
Curricula organization, materials, and methods currently used in secondary schools. Techniques for evaluating and constructing curricula.

EDUC 620. Teaching Reading in the Content Field (3)
Considerations of provisions and procedures for developing reading skills needed at the upper elementary and junior-senior high school level; various types of reading improvement programs, reading tests, and remedial programs at the upper grade levels. EDUC 520 or 530 recommended as prerequisites.

EDUC 635. Laboratory Experience in Education (K-4) (3)
A substitute for student teaching for early childhood (K-4) majors. The course will include current problems and strategies in teaching, with laboratory periods for construction of classroom materials. Classroom teaching experiences with young children will be included. Prerequisite: one year of successful classroom experience. Summer only.

EDUC 670. Directed Field Project (3)
Required in all Rank I programs. Following prescribed guidelines, the student works on a problem of practical significance in the classroom, school, or school district and prepares a formal project report. A written project proposal is prepared during the first month of the course, and students are expected to complete course requirements by the end of the term in which they are registered. Regular consultation with the project supervisor is expected. Prerequisites: Completion of 12 semester hours toward Rank I certification, and permission of the project supervisor.

EDUC 676. Research and Seminar in Elementary Education (3)
Student must work in a practicum setting for 25 clock hours in addition to attending seminars — reporting on research studies pertinent to the field.

EDUC 677. Research and Seminar on the Middle School (3)
Student must work in a practicum setting for 25 clock hours in addition to attending seminars — reporting on research studies pertinent to the field.

EDUC 678. Research and Seminar in Secondary Education (3)
Student must work in a practicum setting for 25 clock hours in addition to attending seminars — reporting on research studies pertinent to the field.

EDUC 680. Research and Seminar in Supervision (3)
Student must work in a practicum setting for 25 clock hours in addition to attending seminars — reporting on research studies pertinent to the field.

EDUC 695. Graduate Independent Study (3)
Guided study and research in area pertinent to the needs of the student at the 6th year level.

EDUCATIONAL ADMINISTRATION

EDAD 630. School Law (3)
History of legal provisions for public education in the United States, interpretation and application of present school law, federal and state.

EDAD 640. School Finance and Business Management (3)
Federal, state and local financing of schools, equalization of educational opportunities, sources of schoo revenue, school budgets, business methods of accounting.

EDAD 642. Administration of Pupil Personnel Services (3)
Emphasizes roles and responsibilities related to the organization and administration of pupil personne services.

EDAD 643. Pupil Personnel Accounting and Records Management (3)
Emphasizes systematic procedures in pupil personnel accounting and records management as relate to the financing of public education and the protection of student rights.

EDAD 645. School Organization and Administration (3)
Organization of the modern public school, staff-teacher relationships, programs of studies, teache records and reports, personnel and public relations, utilization of teacher time and physical facilities and the impact of judicial policy making.

EDAD 650. School Plant and Transportation (3)
Planning, construction and maintenance of school plants, The operation and administration of pro grams for pupil transportation.

EDAD 654. Principles of Supervision (3)
A study of the purposes, principles, and techniques of educational supervision. Emphasis on th instructional aspects of school administration.

EDAD 655. The Elementary School Principal (3)
An analysis of the role of the principal in the modern elementary school.

EDAD 656. The Secondary School Principal (3)
An analysis of the role of the principal in the modern secondary school.

EDAD 657. The Middle School Principal (3)
An analysis of the role of the principal in the modern middle school.

EDAD 660. School and Community Relations (3)
An examination of school-community relationships. Special emphasis on leadership roles, operationa modes, communication with regard to public school relations.

EDAD 675. Internship and Seminar in Administration (3)
A total of 90 clock hours in a practicum situation under a qualified administrator is required with a written record of experiences. Student qualifying for certification as Supervisor of Instruction must hav experience under a general supervisor; students qualifying for elementary principalship must work under an elementary principal; students qualifying for secondary principalship must work under a secondary principal. Two seminars are held on campus.

If a student is pursuing elementary and secondary principalship certification, one-half time (45 hours must be given to each area under the appropriate administrators. The student must give equal time likewise if working toward Supervisor of Instruction certification. Two seminars are held on campus Prerequisites: EDAD 654 and EDAD 655 or EDAD 656.

EDAD 676. Research and Seminar in Elementary Education (3)

EDAD 677. Research and Seminar in the Middle School (3)

EDAD 678. Research and Seminar in Secondary Education (3)

EDAD 680. Research and Seminar in Supervision (3)
These four courses are designed to acquaint the student with recent research in the area of specialization being studied and to identify trends, innovations, and problems in that area. The student works in a

practicum setting for 25 clock hours under a qualified administrator, reports on recognized research studies, keeps a log of practicum experiences, and participates in scheduled seminars.

ENGLISH

ENGL 401G Modern Grammar (3)
An intensive review of traditional grammar in combination with selected material from structuralist views of linguistic analysis and theories of transformational grammar. Attention is paid to the practical application of each. Offered in even numbered years only.

ENGL 402G. Advanced Composition (3)
For the student who wishes to become a more competent writer. Research papers, factual narratives, argumentation, and "creative" writing are assigned according to the needs and aptitude of the student. Offered in even numbered years only.

ENGL 419G. Composition for Teachers (3)
Review of basic elements of composition with regular writing assignments in both expository and argumentative modes. Techniques of marking and evaluation of student papers. Research techniques, a methodology for teaching students to develop a research paper and practical application of the methodology through the assignment of a research paper as an integral part of the course itself. (On demand.)

ENGL 421G. History of the English Language (3)
A study of the origins and development of the English language from Anglo-Saxon times to the present. Supplementary readings in early and medieval English history with emphasis on the effects of historical events on language change. Offered in odd numbered years only.

ENGL 451G. Modern Poetry (3)
American and British poetry, with consideration of ways of reading, criticizing, and writing verse in this century. Offered in odd numbered years only.

ENGL 521. Advanced Study of English Literature, 500-1700 (3)
Intensive study of some phase of English literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 522. Advanced Study of English Literature, 1700-Present (3)
Intensive study of some phase of English literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 541. Advanced Study of American Literature, 1600-1860 (3)
Intensive study of some phase of American literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 542. Advanced Study of American Literature, 1860-Present (3)
Intensive study of some phase of American literature within this period. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 572. Special Topics in Literature (3)
Intensive study of a literary topic of special interest to secondary teachers. This course may be taken more than once providing that the course content is different. The class schedule will designate the specific content covered.

ENGL 595. Independent Study in English (3)
Independent study of research on an approved topic. May be repeated for credit.

ENGL 599. Master's Thesis (6)

ENVIRONMENTAL STUDIES

ENVS 469G. The Appalachian Environment (3)
Conservation of natural resources including soil, water, wildlife, and forests as interrelated components of the environment. Current problems relating to the environmental quality of the Appalachian region. Prerequisites: Two courses in environmental studies or biology and some knowledge of economics. Offered in Summer and on demand.

ENVS 550. Environmental Education Strategies (3)
A two-week workshop designed to foster a greater understanding of our environment through a combination of classroom and direct first-hand experiences. Conducted in cooperation with the USDA Forest Service and the Kentucky Division of Forestry. Offered in Summer only.

GENERAL SCIENCE

GNSC 401G. Science: Concepts, Processes, and Inquiry (3)
The student will examine the processes of science such as collecting data, measuring, predicting, formulating hypotheses, and experimenting. As materials from such new science programs as ESS, SCIS, IME, IIS and ISCS are used, the basic concepts as well as content of science will be reviewed. The inquiry approach to teaching a science will be stressed, along with learning theory and laboratory equipment use (commercial and handmade).

GNSC 525. Science for the Elementary Grades (3)
Application of modern learning theories and psychological foundations to the teaching of science in the elementary grades. Includes discussion of trends in science education, applications of research to teaching, and special problems that occur in schools.

GNSC 561. Topics in Physical Science (3)
Enrichment and updating elementary and middle grade school teachers on selected topics in astronomy, physical science and modern physics. Selected science journal off-prints will be reviewed. The course will include several lecture demonstrations and hands-on experience with some laboratory equipment.

GNSC 584. Plate Tectonics (3)
A theory which professional geologists scoffed at only a few years ago has revolutionized earth science in the last two decades. In this combination lecture/laboratory course, students will construct models and analyze actual data to reconstruct the historical development of this important theory.

GNSC 595. Research Investigations (3)
An independent research problem in which the student must demonstrate his ability to employ the scientific method in carrying out an original scientific investigation. A typewritten and bound manuscript will be required. An examination may or may not be given, depending on the nature of the problem selected. Prerequisite: Permission of the instructor and approval of the head of the department.

GNSC 599. Master's Thesis (6)

HEALTH

HLTH 451G. School and Community Health (3)
Reveals the relationship needed between the school and community to promote the total health of the population. Speakers are secured from official agencies, voluntary agencies, professional agencies, sponsored agencies, and other colleges. Small groups are utilized for discussion, field trips, and study through audio-visual aids. A variety of health areas are covered, including nutrition, physical fitness, drugs, alcohol, tobacco, human sexuality, and emotional health.

HLTH 475. Critical Areas in Health (3)
Specific health problems confronting society today, with particular reference to secondary-age students.

HLTH 551. Readings in Health (3)
A course enabling the students to research the literature in the area of health, not only to increase basic knowledge, but to become acquainted with current trends and issues.

HLTH 582. Safety Education (3)
Accident problems in the home, in the school, at work, and on the highways are discussed with the purpose of being able to influence those who teach by preparing them in the various areas of safety. Groups specialized in a variety of safety areas, such as National Safety Council, American Red Cross, Bureau of Mines, and Kentucky State Police will be utilized.

HLTH 595. Independent Study (3)
Independent study in the field of health. May include practical field experiences.

HISTORY

HIST 421G. The Middle Period (1821-1850) (3)
A detailed examination of Jackson, politics, and the culture of the period. The course emphasizes the Age as one of chaos, and considers conflicting interpretations of the period.

HIST 446G. History of Russia (3)
Russia history since 1689.

HIST 470G. Twentieth Century America (3)
Selected topics on the Nation's history since 1900.

HIST 475G. Special Topics in History (3)
Designed for teachers in special areas of interest.

HIST 521. History and Culture of Appalachia (3)
This course focuses primarily on the impact of industrialization and modernization in Southern Appalachia since the Civil War. It emphasizes the great diversity of historical and cultural experience within the Region.

HIST 531. The American Revolutionary Era (3)
The background of the revolution. The Continental Congress and the Confederation at work; internal problems and strife; military and naval events; foreign relations; the road to final independence and peace. Offered in even numbered years only.

HIST 541. Issues in Teaching History (3)
Required for History and Social Science majors and minors. Focuses on problems and issues faced by history teachers. Special attention is given to possible courses of action when the teacher is confronted by student-held popular myths regarding history. Offered in Summer only.

HIST 551. Civil War and Reconstruction (3)
A study of the Civil War and Reconstruction period in American history.

HIST 595. Independent Study (3)

HIST 599. Master's Thesis (6)

MATHEMATICS

MATH 531. Topics in Modern Math for Elementary Teachers (3)
A study from a historical and theoretical viewpoint of topics in mathematics taught in elementary grades. Number systems, number theory, real numbers, logic, geometry, probability and statistics. Credit not granted to students who have completed both MATH 203 and 204. Offered in Summer only.

MATH 532. Modern Math Laboratory (3)
An active involvement in laboratory experiments with multibase blocks, sets, Cuisenaire rods, geoboards, etc.; development of skills in the production and use of teacher-made material; problem solving techniques. Prerequisites: MATH 531 or MATH 203-204 are recommended. Offered in Summer only.

MATH 595. Independent Study (3)

MUSIC

MUSC 520. Special Topics in Music History and Literature (3)
Intensive study and research pertaining to a selected composer or composers.

MUSC 570. History and Literature of the Wind Band (3)
A survey of the history and development of wind band instrumentation and literature from the 18th century to the present.

MUSC 572. Advanced Choral Conducting (3)
Advanced study and drill in the areas of conducting and rehearsal technique, voice-building for choirs, score study, choral literature, and performance practice.

MUSC 573. Survey of Choral Literature (3)
A study or works representing the major genres of choral music from the Renaissance to the present, with emphasis on style characteristics, performances, and issues.

MUSC 574. Advanced Instrumental Conducting (3)
A practical study of instrumental conducting techniques, with emphasis on physical technique, score study, rehearsal procedure, and stylistic interpretation. Prerequisite: Undergraduate instrumental conducting or permission of the instructor.

MUSC 575. Computer Application in Music (CAIM) (3)
A survey of equipment and software available for computer assisted instruction in the public schools, including programming techniques for creating locally focused instructional modules.

PHYSICS

PHYS 401G. Principles of Modern Physics (3)
Elementary concepts of quantum mechanics. Selected topics in atomic and nuclear physics. Prerequisites: Two semesters of calculus.

PHYS 411G. Classical Mechanics (3)
For secondary teachers of physics. Motion of a particle; systems of particles and rigid bodies; moving coordinate systems; Lagrange's equations; small oscillations. Prerequisite: Three semesters of calculus.

PHYS 600. Research Investigations (3)
An introduction to research in which the student must demonstrate an ability to use the scientific method by conducting an original scientific investigation. A typewritten report will be required. An examination may or may not be given depending on the nature of the problem selected. Prerequisite: Permission of instructor and approval of the Division Chair and Dean of Graduate Academic Affairs.

PSYCHOLOGY

PSYH 402G. Counseling Theories and Techniques (3)
Basic theories, types, and techniques of counseling. Practice in individual and group techniques of interviewing.

PSYH 460G. Theories of Personality (3)
Nature of personality structure and dynamics. Classical psychoanalysis, social psychological, and stimulus-response theories included.

PSYH 461G. History and Systems of Psychology (3)
Origins of psychological thought within science and philosophy, tracing the development of systems and theories with German, British and American psychology.

PSYH 470G. Theories of Learning (3)
Basic fundamentals of learning theory as formulated by such theorists as Thorndike, Pavlov, Guthrie, Skinner, and Hull. Attention is given to the empirical support of various theories plus recent developments in cognitive psychology.

SYH 525. Psychology of Reading (3)
heory and applications of learning principles as applied to the reading processes. Major emphasis lates to respondent, operant, and perceptual learning paradigms. Offered in odd numbered years ıly.

SYH 565. Psychology of Exceptional Children (3)
ırvey course on children with special educational needs. The nature, cause and intervention of :ceptionality.

SYH 595. Independent Study (3)

SYH 600. Advanced Human Development (3)
sychological development from birth to maturity. Emphasis upon the principal concepts and problems the development of the individual. Exceptionality and multicultural differences are considered.

SYH 640. Group Processes (3)
study of theory and practice in group dynamics. The process and implications of group processes, oup counseling, and the human potentiality are explored.

SYH 650. Advanced Educational Psychology (3)
ıe study of advanced psychological concepts and principles as applied to classroom management and udent learning. Major emphasis is given to the translation of theoretical foundations of psychological ıowledge to practical classroom applications. Behavioral, cognitive, and humanistic perspectives are :plored in relation to teacher-student relationships.

SYH 599. Master's Thesis (6)

SOCIOLOGY

OCI 421G. Rural and Urban Sociology (3)
ɔmparative and interrelated study of urban and rural life considering the physical, institutional, social ıd economic factors of modern life in cities and in the countryside.

OCI 433G. Social Change (3)
troduces students to the problems of development and change. Examples will be drawn from Third 'orld models of development, nationalism, imperialism, environmentalism, and human rights. The ɔurse is interdisciplinary, with emphasis on historical, economic, environmental and sociological pects.

OCI 460G. Sociological Theory (3)
ıe major theories which have proved useful in investigating the nature of society are examined as ltural products, ideologies, and scientific models. Special attention is given to major figures such as ɔmte, Durkheim, Weber, Merton, C. Wright Mills, White, and Sorokin in the emergence and ɔnvergence of their theoretical development. Lecture and discussion in a seminar setting.

OCI 464G. Sociology of Deviance and Criminology (3)
ıis course will develop on understanding of the social definitions and implications of deviance. arious types of deviant behavior and relevant theories of society will be addressed.

OCI 511. Educational Sociology (3)
n analysis of schooling and education in a social, historic, and economic perspective. Special attention given to the socialization of the child within and outside the school in light of the dominant culture rces in Western Society.

OCI 595. Independent Study (3)

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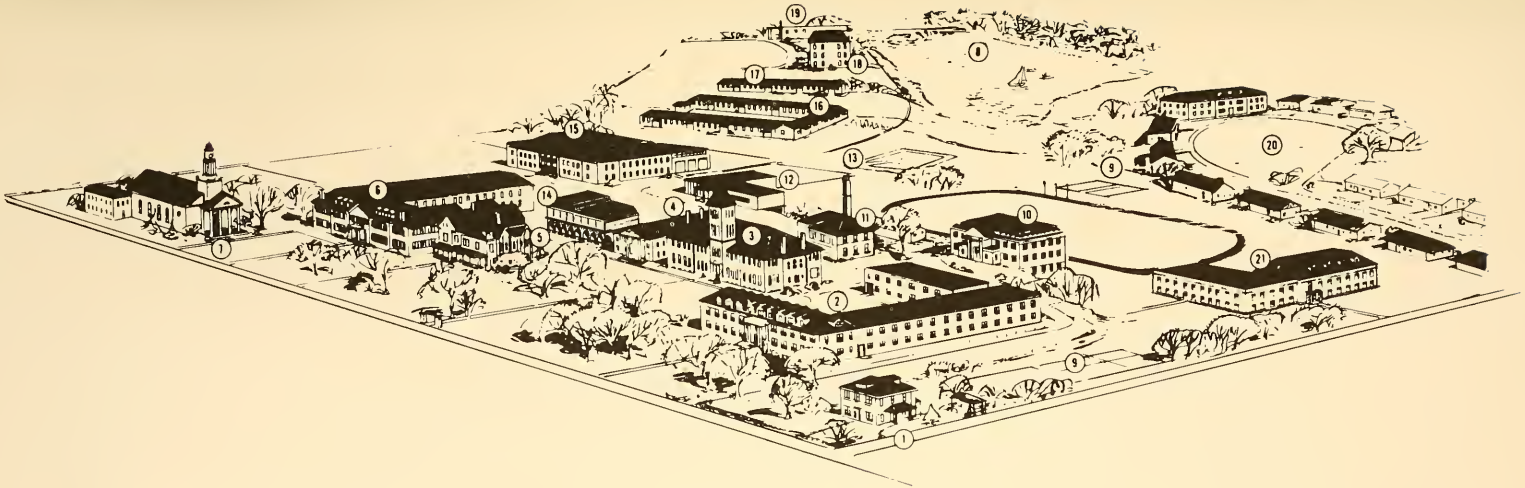

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